

# JVC

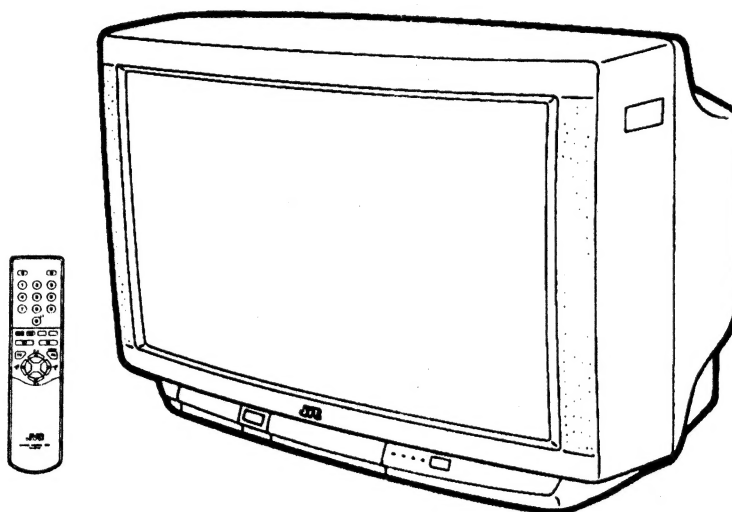
## SERVICE MANUAL

### COLOUR TELEVISION

BASIC CHASSIS

MD

# AV-32WZ4EP AV-28WZ4EP AV-28WZ4EPS



[AV-32WZ4EP]


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## SPECIFICATIONS

Item	Content	
	AV-32WZ4EP	AV-28WZ4EP / AV-28WZ4EPS
<b>Dimensions ( W × H × D )</b>	80.5cm × 55.0cm × 55.0cm	71.6cm × 48.9cm × 49.6cm
<b>Mass</b>	49.8kg	36.3kg
<b>TV RF System</b>	CCIR (B/G, I, L)	
<b>Colour System</b>	PAL / SECAM / NTSC (Only EXT mode)	
<b>Stereo System</b>	A2/NICAM (B/G) / NICAM (B/G, L)	
<b>Teletext System</b>	Fastext (United Kingdom system) / TOP (German system) / WST(Standard system)	
<b>Receiving Frequency</b>	<b>VHF</b> 47MHz~ 470MHz <b>UHF</b> 470MHz~862MHz <b>French CATV</b> 116MHz~172MHz / 220MHz~469MHz	
<b>Intermediate Frequency</b>	<b>VIF Carrier</b> 38.9MHz(B/G, I, L) / 34.10MHz(L) <b>SIF Carrier</b> 33.4MHz(5.5MHz : B/G) / 32.9MHz(6.0MHz : I) / 32.4MHz(6.5MHz : L) / 40.6MHz(6.5MHz : L)	
<b>Colour Sub Carrier Freq.</b>	<b>PAL</b> 4.43MHz <b>SECAM</b> 4.40625MHz / 4.25MHz <b>NTSC</b> 3.58MHz / 4.43MHz	
<b>Power Input</b>	AC 220V ~ 240V, 50Hz	
<b>Power Consumption</b>	249W(Max), 145W(Avg) / 145W/h (ITALY)	242W(Max), 138W(Avg) / 138W/h (ITALY)
<b>Picture Tube</b>	Visible size : 76cm, Measured diagonally	Visible size : 66cm, Measured diagonally
<b>High Voltage</b>	32.0kV <sup>+1kV</sup> / <sub>-1.5kV</sub> (at zero beam current)	
<b>Speaker</b>	φ 10cm + φ 3.5cm round × 2	
<b>Audio Output</b>	20W + 20W	
<b>EXT-1/EXT-2/EXT-3 (Input / Output)</b>	21-pin Euro connector(SCART socket)	
<b>EXT4 (Input)</b>	<b>Video</b> 1Vp-p 75 Ω(RCA pin jack) <b>Audio(L/R)</b> 500mVrms(-4dBs), High Impedance(RCA pin jack) <b>S-VIDEO</b> Y : 1Vp-p Positive (negative sync provided, when terminated with 75 Ω) C : 0.286Vp-p (burst signal, when terminated with 75 Ω)	
<b>SURROUND REAR OUT</b>	Speaker terminals for external surround speakers (Impedance 8 Ω) only. Rated power output : 7.5W+7.5W	
<b>AUDIO OUT</b>	Variable out(0-1 Vrms), Low impedance FRONT L/R output(RCA pinjack)	
<b>Aerial Input</b>	75 Ω unbalanced, Coaxial	
<b>Headphone jack</b>	Stereo mini jack ( φ 3.5mm )	
<b>Remote Control Unit</b>	RM-C793 AAA(R03) dry battery × 2	

Design & specifications are subject to change without notice.

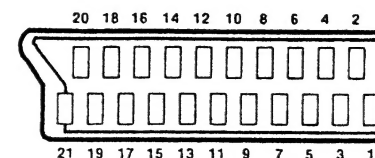
★ Manufactured under license from Dolby Laboratories Licensing Corporation.  
"Dolby" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

## ■21-pin Euro connector (SCART socket) : EXT-1 / EXT-2 / EXT-3

(P-P= Peak to Peak, S-W= Sync tip to white peak, B-W= Blanking to white peak)

Pin No.	Signal Designation	Matching Value	EXT-1	EXT-2	EXT-3
1	AUDIO R output	500mVrms(Nominal), Low impedance	○ (TV OUT)	○ (LINE OUT)	NC
2	AUDIO R input	500mVrms(Nominal), High impedance	○	○	○
3	AUDIO L output	500mVrms(Nominal), Low impedance	○ (TV OUT)	○ (LINE OUT)	NC
4	AUDIO GND		○	○	○
5	GND (B)		○	○	○
6	AUDIO L input	500mVrms(Nominal), High impedance	○	○	○
7	B input	700mV <sub>B-W</sub> , 75 Ω	○	NC	NC
8	FUNCTION SW (SLOW SW)	Low : 0-3V, High : 8-12V, High impedance	○	○	○
9	GND (G)		○	○	○
10	SCL3		NC	○	NC
11	G input	700mV <sub>B-W</sub> , 75 Ω	○	NC	NC
12	SDA3		NC	○	NC
13	GND (R)		○	○	○
14	GND (Y <sub>S</sub> )		○	NC	NC
15	R / C input	R : 700mV <sub>B-W</sub> , 75 Ω C : 300mV <sub>P-P</sub> , 75 Ω	○ (only R)	○ (only C)	○ (only C)
16	Ys input	Low : 0 - 0.4, High : 1 - 3V, 75 Ω	○	NC	NC
17	GND(VIDEO output)		○	○	○
18	GND(VIDEO input)		○	○	○
19	VIDEO output	1V <sub>S-W</sub> (Negative going sync), 75 Ω	○ (TV)	○ (LINE OUT)	NC
20	VIDEO / Y input	1V <sub>S-W</sub> (Negative going sync), 75 Ω	○	○	○
21	COMMON GND		○	○	○

[Pin assignment]





## SAFETY PRECAUTIONS

- The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
- Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
- Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. Electrical components having such features are identified by shading on the schematics and by (Δ) on the parts list in Service manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
- Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**  
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⌚) side GND, the ISOLATED(NEUTRAL) : (⌚) side GND and EARTH : (⊕) side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.  
If above note will not be kept, a fuse or any parts will be broken.
- If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B1 POWER SUPPLY).
- The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
- Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.
- When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

### 9. Isolation Check (Safety for Electrical Shock Hazard)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

#### (1) Dielectric Strength Test

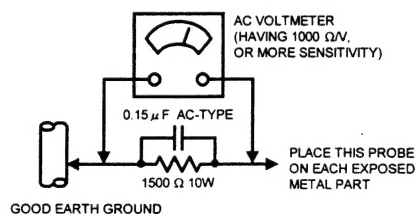
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second.  
(... Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)  
This method of test requires a test equipment not generally found in the service trade.

#### (2) Leakage Current Check

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.). However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

#### • Alternate Check Method

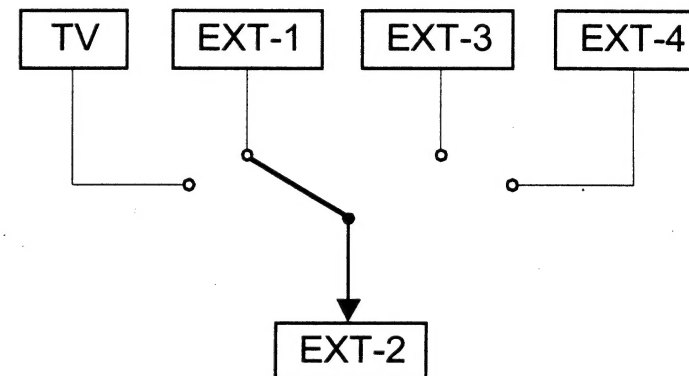
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.). However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



## FEATURES

- By preference, users can select the picture size from REGULAR, PANORAMIC, 14:9 ZOOM, 16:9 ZOOM, 16:9 ZOOM SUBTITLE, FULL modes. When the TV unit received WSS picture signal, the picture can be changed to 16:9 mode automatically.
- The TELETEXT SYSTEM has a built-in Fastest, and WST system.
- Because this TV unit corresponds to multiplex broadcast, users can enjoy music programs and sporting events with live realism. In addition, BILINGUAL programs can be heard in their original language.

- In accordance with the brightness in a room, the brightness and/or contrast of the picture can be adjusted automatically to make the optimum picture which is easy on the eye.
- Users can make VCR dubbing of picture and sound by controlling the AV selector to select an optional source at the EXT-2 output shown in figure.
- Built-in SURROUND OUT.
- Built-in TV-LINK.



## MAIN DEFFENCE PARTS LIST

△	Model Name	AV-32WZ4EP	AV-28WZ4EP	AV-28WZ4EPS
Part Name				
MAIN PWB		SMD-1002A-U2	SMD-1003A-U2	←
POWER / DEF PWB		SMD-2002A-U2	SMD-2003A-U2	←
CRT SOCKET PWB		SMD-3003A-U2	SMD-3002A-U2	←
100Hz PWB		SMD0Z002A-U2	SMD0Z003A-U2	←
CONTROL BASE L		CM12925-B01-E	CM12925-B03-E	←
CONTROL BASE R		CM12925-A02-E	CM12925-A04-E	←
FFC WIRE		CHFD125-10BD	CHFD125-06BD	←
ANODE WIRE ASSY		QNZ0407-001	CETW004-055	←
△ CRT (ITC)		W76ESF031X44	W66ESF002X44	←
BRAIDED ASSY		CHGB0029-0C	CHGB0029-0B	←
△ DEG COIL		CELD062-001J2	CELD061-001J2	←
FRONT CABINET ASSY		CM12587-B0Q-E	CM12833-A0L-E	CM12833-A0K-E
OPERATION SHEET		CM36857-001	CM36587-002	←
DOOR (SERVICE)		CM23131-003-E	CM23132-010-E	CM23132-008-E
JVC MARK		CM48125-001	←	CM48125-004
SPEAKER NET		CM36172-00A-S	CM36171-00A-H	CM36171-00C-H
DOME BOX (× 2)		CM12922-A01-E	CM12878-B01-E	←
DOME ADAPTER (× 2)		CM12921-001-E	×	×
△ FBT (SERVICE)		QQH0054-002-I2	CETH026-00B	←
△ REAR COVER		CM12737-003-E	CM12582-A04-E	←
△ RATING LABEL		LC20092-008A-U LC20093-008A-U	LC20092-007A-U LC20093-007A-U	LC20092-016A-U LC20093-016A-U
EURO LABEL		AEM1038-085-E	AEM1039-062-E	AEM1039-040-E
X-RAY CARD		AEM1043-001-E	AEM1042-001-E	←
CUSHION SHEET		AEM3022-003-E	CP40193-009-E	←
CUSHION SHEET		AEM3022-004-E	CP40193-010-E	←
SET COVER		AEM1004-A07-E	AEM1004-A06-E	←
PACKING CUSHION		CP11549-B0B-E	LC10522-002A-U	←
PACKING CASE		AEM1002-C43-E	AEM1002-067-E	←

## SPECIFIC SERVICE INSTRUCTIONS

### REPLACEMENT OF CHIP COMPONENT

#### ■ CAUTIONS

1. Avoid heating for more than 3 seconds.
2. Do not rub the electrodes and the resist parts of the pattern.
3. When removing a chip part, melt the solder adequately.
4. Do not reuse a chip part after removing it.

#### ■ SOLDERING IRON

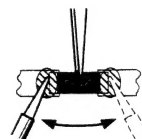
1. Use a high insulation soldering iron with a thin pointed end of it.
2. A 30w soldering iron is recommended for easily removing parts.

#### ■ REPLACEMENT STEPS

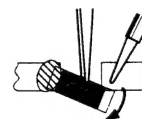
##### 1. How to remove Chip parts

###### ◆ Resistors, capacitors, etc

- (1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.



- (2) Shift with tweezers and remove the chip part.



###### ◆ Transistors, diodes, variable resistors, etc

- (1) Apply extra solder to each lead.



- (2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.

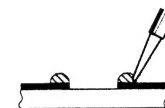


Note : After removing the part, remove remaining solder from the pattern.

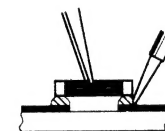
##### 2. How to install Chip parts

###### ◆ Resistors, capacitors, etc

- (1) Apply solder to the pattern as indicated in the figure.

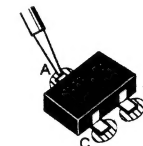


- (2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.



###### ◆ Transistors, diodes, variable resistors, etc

- (1) Apply solder to the pattern as indicated in the figure.
- (2) Grasp the chip part with tweezers and place it on the solder.
- (3) First solder lead A as indicated in the figure.



- (4) Then solder leads B and C.



## DISASSEMBLY PROCEDURE

### REMOVING THE REAR COVER

1. Unplug the power cord.
2. Remove the 13 screws marked (A) as shown in Fig. 1.
3. Withdraw the rear cover toward you.

### REMOVING THE CHASSIS

- After removing the rear cover.
1. Remove the screws marked (B) on the S/VIDEO terminal of FRONT CABINET as shown in the Fig. 1.
  2. Slightly raise the both sides of the chassis by hand and remove the two claws under the both sides of the chassis from the front cabinet.
  3. Withdraw the chassis backward.  
(If necessary, take off the wire clamp, connectors etc.)

### REMOVING THE AV TERMINAL PWB & THE AV BOARD

- After removing the rear cover.
1. Remove the 9 screws marked (B) as shown in Fig. 1.
  2. Remove the claws marked (C) under the CHASSIS as shown in Fig. 2.
  3. While raising the claw marked (D), remove the top of the AV BOARD slightly in the direction of arrow (E) as shown in Fig. 2.

### REMOVING THE DOME SPEAKER BOX

- After removing the rear cover.
1. Remove the 2 screws marked (F) as shown in Fig. 1.
  2. Follow the same steps when removing the other hand DOME SPEAKER BOX.

**NOTE:** When removing the screws marked (F) of the DOME SPEAKER BOX, remove the lower side screw first, and then remove the upper screw.

### REMOVING THE CONTROL BASE

- After removing the CHASSIS.
1. While pushing down the claws marked (H), remove the CONTROL BASE in the arrow direction (I) as shown in Fig. 3.

### CHECKING THE PW BOARD

To check the back side of the PW Board.

- 1) Pull out the chassis. (Refer to REMOVING THE CHASSIS).
- 2) Erect the chassis vertically so that you can easily check the back side of the PW Board.

#### [CAUTION]

- When erecting the chassis, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the wire connector is properly connected.
- When conducting a check with power supplied, be sure to confirm that the CRT EARTH WIRE (BRAIDED ASS'Y) is connected to the CRT SOCKET PW board.

### WIRE CLAMPING AND CABLE TYING

1. Be sure to clamp the wire.
- Never remove the cable tie used for tying the wires together. Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

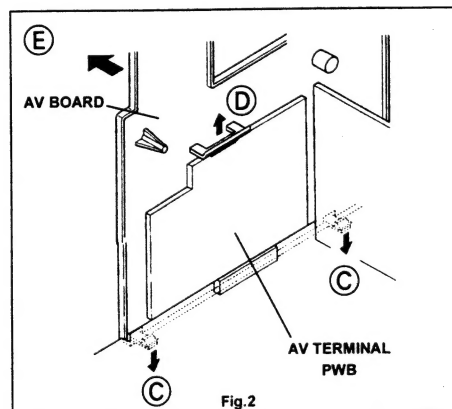


Fig. 2

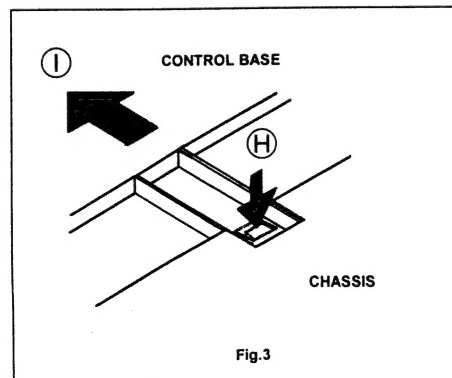


Fig. 3

This exploded view describes about AV-32WZ4EP. Although AV-28WZ4EP/EPS are slightly different from this figure, you can use the exploded view for disassembling the AV-28WZ4EP/EPS in the same step as for the AV-32WZ4EP.

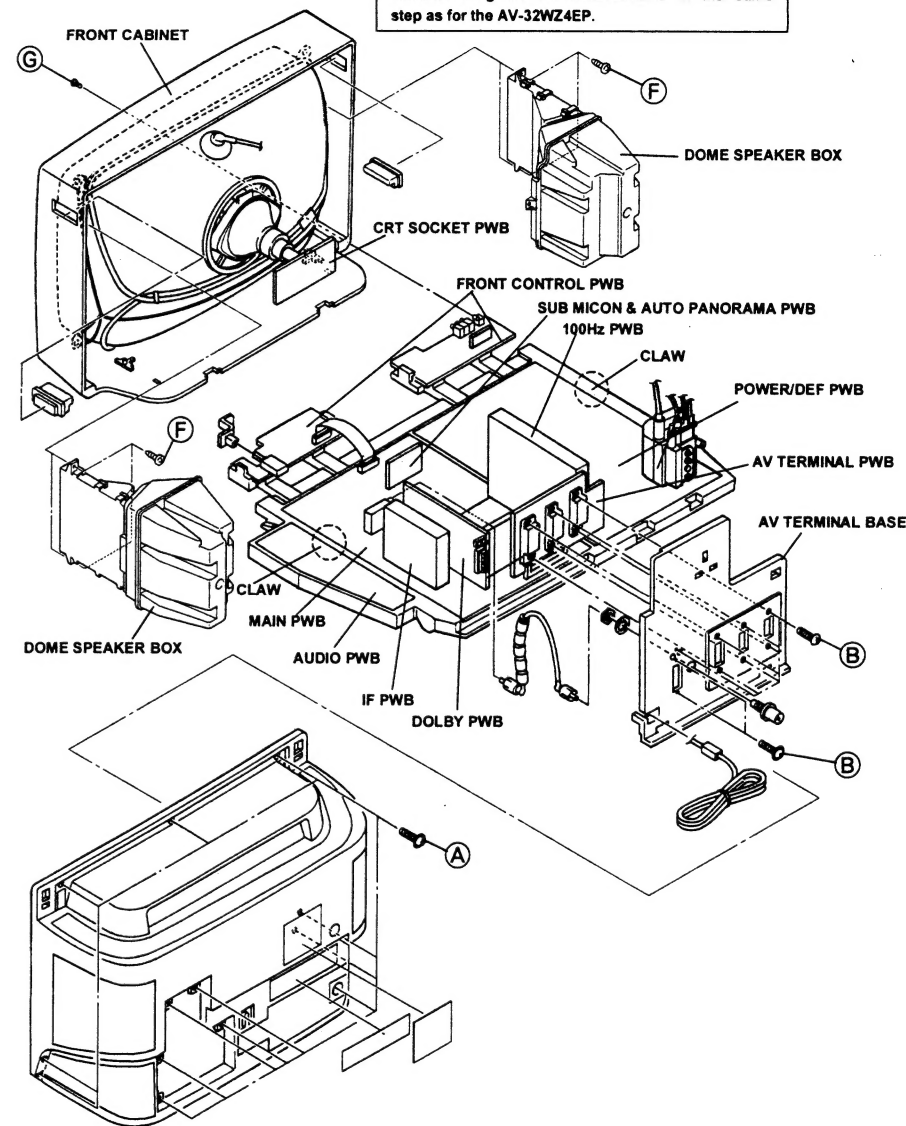


Fig. 1

REMOVING THE CRT

- Replacement of the CRT should be performed by 2 or more persons.
- After removing the cover, chassis etc.,
- 1. Putting the CRT change table on soft cloth, the CRT change table should also be covered with such soft cloth (shown in Fig.4).
- 2. While keeping the surface of CRT down, mount the TV set on the CRT change table balanced will as shown in Fig.4.
- 3. Remove 4 screws marked by arrows with a box type screw driver as shown in Fig.5.
- Since the cabinet will drop when screws have been removed, be sure to support the cabinet with hands.
- 4. After 4 screws have been removed, put the cabinet slowly on cloth (At this time, be carefully so as not to damage the front surface of the cabinet) shown in Fig.6.
- The CRT should be assembled according to the opposite sequence of its dismantling steps.
- The CRT change table should preferably be smaller than the CRT surface, and its height be about 35cm.

COATING OF SILICON GREASE FOR ELECTRICAL INSULATION ON THE CRT ANODE CAP SECTION.

- Subsequent to replacement of the CRT and HV transformer or repair of the anode cap, etc. by dismantling them, be sure to coat silicon grease for electrical insulation as shown in Fig.7. Wipe around the anode button with clean and dry cloth. (Fig.7) Coat silicon grease on the section around the anode button. At this time, take care so that any silicon greases dose not stick to the anode button. (Fig.8)

★ Silicon grease product No. KS - 650N

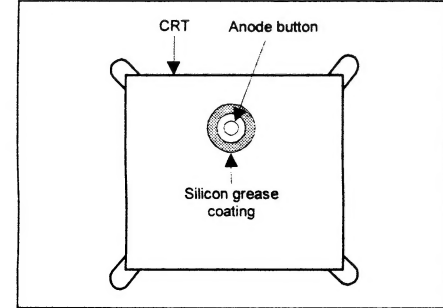


Fig. 7

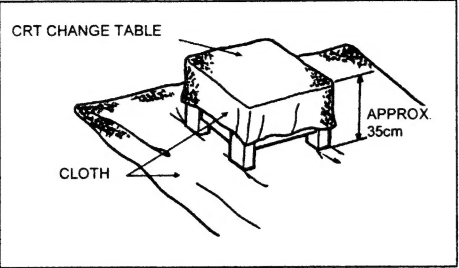


Fig. 4

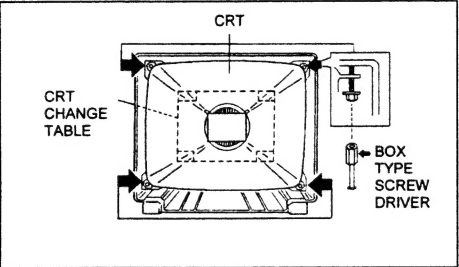


Fig. 5

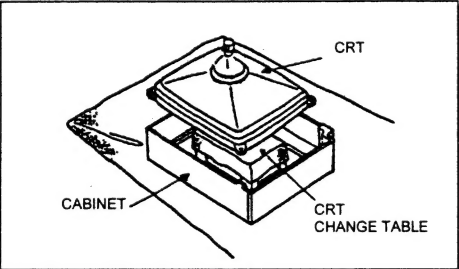


Fig. 6

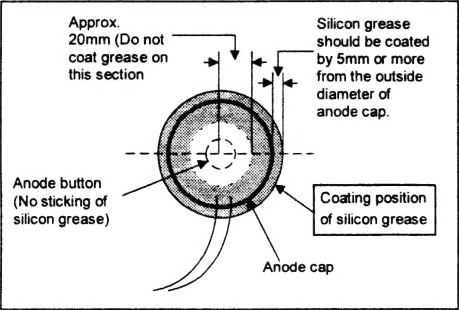


Fig. 8

REPLACEMENT OF MEMORY ICs

1. Memory ICs

This TV use memory ICs. In the memory ICs, there are memorized data for correctly operating the video and deflection circuits. When replacing memory ICs, be sure to use ICs written with the initial values of data.

2. Procedure for replacing memory ICs

PROCEDURE	
(1) <b>Power off</b>	Switch the power off and unplug the power cord from the outlet.
(2) <b>Replace ICs.</b>	Be sure to use memory ICs written with the initial data values.
(3) <b>Power on</b>	Plug the power cord into the outlet and switch the power on.
(4) <b>Check and set SYSTEM CONSTANT SET:</b>	<ol style="list-style-type: none"><li>1) Press the INFORMATION key and the MUTING key of the REMOTE CONTROL UNIT simultaneously.</li><li>2) The SERVICE MENU screen of Fig. 1 will be displayed.</li><li>3) While the SERVICE MENU is displayed, press the INFORMATION key and MUTING key simultaneously, and the SYSTEM CONSTANT SET screen of Fig. 2 will be displayed.</li><li>4) Check the setting values of the SYSTEM CONSTANT SET of Table 1. If the value is different, select the setting item with the FUNCTION UP/DOWN key, and set the correct value with the FUNCTION +/- key.</li><li>5) Press the MENU key to memorize the setting value.</li><li>6) Press the INFORMATION key twice, and return to the normal screen.</li></ol>
(5) <b>Setting of receive channels</b>	<p>Set the receive channel.</p> <p>For setting, refer to the OPERATING INSTRUCTIONS.</p>
(6) <b>User settings</b>	<p>Check the user setting values of Table 2, and if setting value is different, set the correct value.</p> <p>For setting, refer to the OPERATING INSTRUCTIONS.</p>
(7) <b>Setting of SERVICE MENU</b>	<p>Verify the setting items of the SERVICE MENU of Table 3, and reset where necessary.</p> <p>For setting, refer to the SERVICE ADJUSTMENTS.</p>

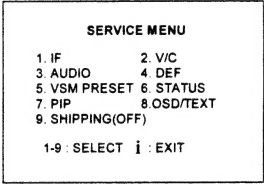


Fig.1

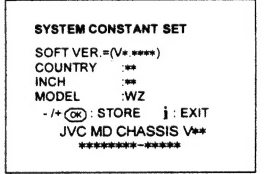


Fig.2

NAME OF REMOTE CONTROL KEY

Names of key	key
INFORMATION	
MUTING	
MENU	
FUNCTION UP/DOWN	
FUNCTION +/-	

SETTING VALUES OF SYSTEM CONSTANT SET (TABLE 1)

Setting item	Setting content	Setting value	
		AV-32WZ4EP	AV-28WZ4EP / AV-28WZ4EPS
COUNTRY	→ EK → EN → EP → ER → EU	EP	EP
28INCH	→ 28 → 32 → 29	32	28
MODEL	→ WFP1 → WZ	WZ	←

USER SETTING VALUES (TABLE 2)

USER SETTING VALUES (TABLE 2)

Setting item	Setting value	Setting item	Setting value
SUB POWER	ON	VOLUME	Appropriate sound volume
CHANNEL	1 POSITION	DISPLAY	CHANNEL NUMBER DISPLAY
CHANNEL PRESET	See ; OPERATING INSTRUCTIONS.	ZOOM	REGULAR
3D	SURROUND OFF	P BASS	POWER BASS OFF
MENU SCREEN SETTING			
PICTURE SETTING		DIGITAL SURROUND	OFF
TINT	COOL	PRO LOGIC 3D-PHONIC	
CONTRAST	REFER to VSM SETTING (SERVICE MENU)	MODE	CINEMA/SPORT
BRIGHT		LEVEL	CENTER
SHARP		TV SPEAKER	L/R
COLOUR		VOLUME (L/R)	MAX
ECO MODE	OFF		
PICTURE FEATURES		DOLBY PRO LOGIC	
DIGITAL VNR DigiPure COLOUR SYSTEM  4:3 ASPECT PICTURE TILT	OFF ON TV : According to preset CH EXT : AUTO PANORAMIC CENTER	MODE	NORMAL
		TV SPEAKER	L/R
		TEST MODE	OFF
		VOLUME	MAX(ALL)
		EXT SETTING	
		ID	BLANK
		DUBBING	EXT1→EXT2
		FEATURES	
SLEEP TIMER	OFF		
BLUE BLACK	ON		
CHILD LOCK	ID : No.0000		
	ALL CH OFF		
SOUND SETTING		INSTALL	
STEREO I / II	( ) (STEREO SOUND)	LANGUAGE	ENGLISH
BASS	CENTER		
TREBLE			
BALANCE	ON		
SPEAKER	VOLUME :10		
HEADPHONE	TV SPEAKER :OFF		

SERVICE MENU SETTING ITEMS (TABLE 3)

Setting item	Setting value	Setting item	Setting value
1. IF	1. VCO 2. DELAY POINT 3. L.V.LEVEL	5. VSM PRESET (COOL NORMAL WARM)	1. BRIGHT 2. CONT. 3. COLOUR 4. SHARP 5. HUE 6. WDR R 7. WDR G 8. WDR B 9. BASS 10. TREBLE
2. V / C (PAL / SECAM)	1. RGB BLK 2. WDR R 3. WDR G 4. WDR B 5. CUT R 6. CUT G 7. CUT B 8. BRIGHT 9. CONT. 10. COLOUR 11. HUE 12. CONT LIMIT 13. PURITY	6. STATUS (Do not adjust)	VPS PDC AUTO SUB SUB VER MTEXT
3. AUDIO (Do not adjust)	1. CONC LIMIT 2. A2 ID THR	7. PIP	(Not available in this model)
4. DEF.	1. V-SHIFT 2. V-SIZE 3. H-CENT 4. H-SIZE 5. EW-PIN 6. TRAPE 7. COR-UP 8. COR-LO 9. ANGLE 10. BOW 11. V-S.CR 12. V-LIN	8. OSD/TEXT (Do not adjust)	1. TEXT MONO H 2. TEXT MIX H
		9. SHIPPING (Do not adjust)	ON / OFF

# SERVICE ADJUSTMENTS

## BEFORE STARTING SERVICE ADJUSTMENT

1. There are 2 ways of adjusting this TV: One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and components.

2. The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.

3. Make sure that connection is correctly made to AC power source.

4. Turn on the power of the TV and measuring instrument for warming up for at least 30 minutes before starting adjustment.

5. If the receive or input signal is not specified, use the most appropriate signal for adjustment.

6. Never touch parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustment.
7. Preparation for adjustment (presetting):  
Unless otherwise specified in the adjustment items, preset the following functions with the REMOTE CONTROL UNIT:

PICTURE MODE (VSM)	COOL
SLEEP TIMER	OFF
SURROUND	OFF
BALANCE	CENTER
ECO	OFF
ZOOM	FULL

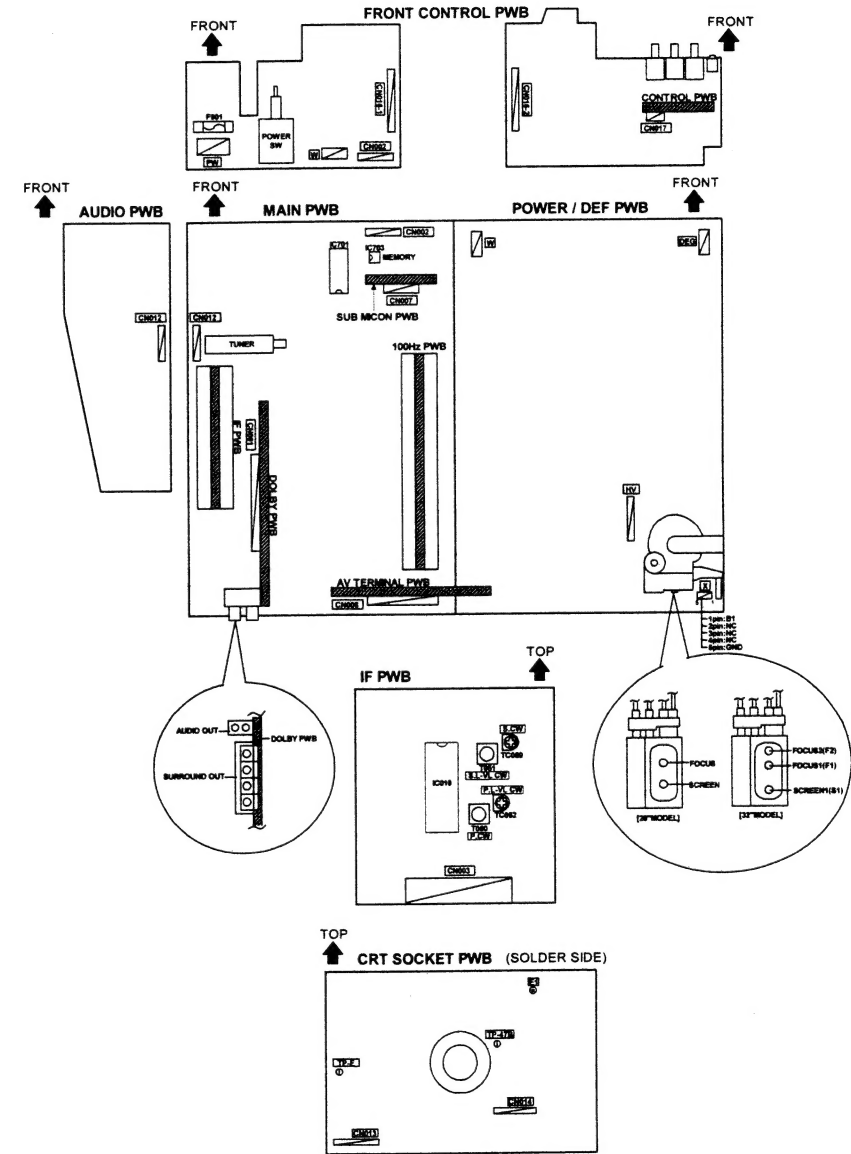
## MEASUREING INSTRUMENT AND FIXTURES

1. DC voltmeter (or digital voltmeter)
2. Oscilloscope
3. Signal generator (Pattern generator) [PAL / SECAM / NTSC]
4. Remote control unit

## ADJUSTMENT ITEMS

- Check of B1 Power supply.
- Check of High voltage.
- Adjustment of FOCUS.
- IF circuit adjustment.
- VSM preset adjust setting.
- VIDEO / CHROMA circuit adjustment.
- DEFLECTION circuit adjustment.
- TEXT circuit adjustment.
- AUDIO circuit adjustment. (Do not adjust)

## ADJUSTMENT LOCATIONS



## BASIC OPERATION OF SERVICE MENU

### 1. TOOL OF SERVICE MENU OPERATION

Operate the SERVICE MENU with the REMOTE CONTROL UNIT.

### 2. SERVICE MENU ITEMS

With the SERVICE MENU, various settings (adjustments) can be made, and they are broadly classified in the following items of settings (adjustments):

- (1) **1. IF** ..... This mode adjusts the setting values of the IF circuit.
- (2) **2.V/C** ..... This mode adjusts the setting values of the VIDEO / CHROMA circuit.
- (3) **3.AUDIO** ..... This mode adjusts the setting values of the multiplicity SOUND circuit.
- (4) **4.DEF** ..... This mode adjusts the setting values of the DEFLECTION circuit for each aspect mode given below.
  - FULL (100/120Hz)
  - PANORAMIC (100/120Hz)
  - 16:9 ZOOM SUBTITLE (100/120Hz)
- (5) **5.VSM PRESET** ..... This mode adjusts the initial setting values of COOL,NORMAL and WARM. (VSM : Video Status Memory)
- (6) **6.STATUS** ..... This mode shows the monitor of the VPS. *(Do not adjust)* (VPS : Video Program System)
- (7) **7.PIP** ..... This mode adjust the setting values of PIP circuit. *[Not available in this model]* (PIP : Picture In Picture)
- (8) **8.OSD/TEXT** ..... This mode adjust the setting values of TEXT mode.
- (9) **9.SHIPPING** ..... This mode sets the INITIAL SETTING VALUE. *(Do not adjust)*

### 3. BASIC OPERATION OF SERVICE MENU

#### (1) How to enter SERVICE MENU

Press the INFORMATION key and the MUTING key of the REMOTE CONTROL UNIT simultaneously, and the SERVICE MENU screen of Fig. 1 will be displayed.

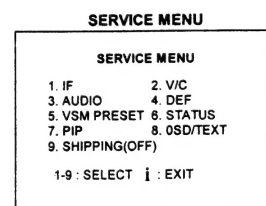


Fig.1

#### (2) Selection of SUB MENU SCREEN

Press one of keys 1~9 of the REMOTE CONTROL UNIT and select the SUB MENU SCREEN (See Fig. 3), form the SERVICE MENU.

SERVICE MENU → SUB MENU

1. IF
2. V / C
3. AUDIO
4. DEF.
5. VSM PRESET
6. STATUS
7. PIP
8. OSD / TEXT
9. SHIPPING

NAME OF REMOTE CONTROL KEY	
Names of key	key
INFORMATION	[i]
MUTEING	[Mute icon]
MENU	[OK]
FUNCTION UP/DOWN	[Up/Down arrow icon]
FUNCTION +/-	[Left/Right arrow icon]

Fig.2

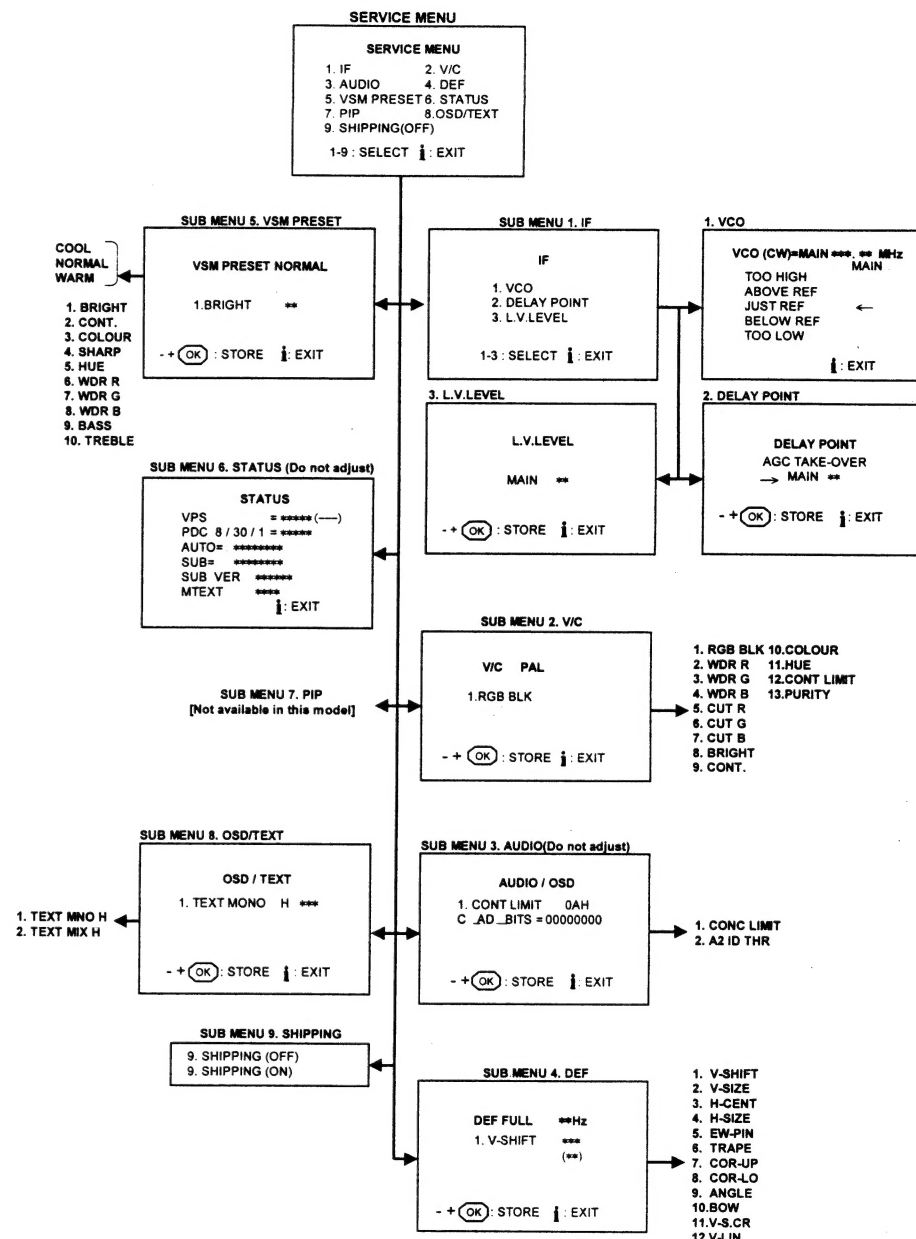


Fig. 3 SUB MENU SCREEN



### (3) Method of Setting

#### 1) Method of Setting 1.IF

##### [1. VCO]

- ① 1 Key..... Select 1.IF.
- ② 1 Key..... Select 1.VCO
- ③ The VCO (CW) screen will be displayed a allow mark when the AFC voltage is at a certain level.
- ④ INFORMATION Key ..... As you press this twice, you will return to the **SERVICE MENU**.

##### [2. DELAY POINT]

- ① 1 Key..... Select 1.IF.
- ② 2 Key..... Select 2.DELAY POINT.
- ③ FUNCTION +/-..... Set (adjust) the setting values of the setting items.
- ④ MENU Key ..... Memorize the set value.  
(Before storing the setting values in memory, do not press the CH, TV, POWER ON / OFF keys - if you do, the values will not be stored in memory.)
- ⑤ INFORMATION Key ..... When this is pressed twice, you will return to the **SERVICE MENU**.

##### [3. L.V.LEVEL]

- ① 1 Key..... Select 1.IF.
- ② 3 Key..... Select 3.L.V.LEVEL.
- ③ FUNCTION +/- Key..... Set (adjust) the setting values of the setting items.
- ④ MENU Key ..... Memorize the set value.  
(Before storing the setting values in memory, do not press the CH, TV, POWER ON / OFF keys - if you do, the values will not be stored in memory.)
- ⑤ INFORMATION Key ..... When this is pressed twice, you will return to the **SERVICE MENU**.

#### 2) Method of setting 2.V/C, 3.AUDIO, 4.DEF, 5.VSM PRESET, and 8.OSD/TEXT.

- ① 2~5, 8 Key ..... Select one from 2. V/C, 3. AUDIO, 4. DEF, 5. VSM PRESET, and 8.OSD/TEXT.
- ② FUNCTION UP/DOWN Key ..... Select setting items.
- ③ FUNCTION +/-..... Set (adjust) the setting values of the setting items.  
(When 1.RGB BLK of 2.V/C is selected, press the FUNCTION-/+ key, and the whole will change to a black picture. Press the FUNCTION-/+ or 2 key, and the screen will return to the original screen.)
- ④ MENU Key ..... Memorize the setting value.  
(Before storing the setting values in memory, do not press the CH, TV, POWER ON / OFF key - if you do, the values will not be stored in memory.)
- ⑤ INFORMATION Key ..... Return to the **SERVICE MENU** screen.

#### 3) Method of setting 6.STATUS and 9.SHIPPING.

- 6.STATUS (Do not adjust)..... This mode displayed monitor of VPS. (Video Program Systems)
- 9.SHIPPING (Do not adjust) ..... This mode is set the initial setting value at the time of shipment, you need not to use it for service.

#### (4) Release of SERVICE MENU

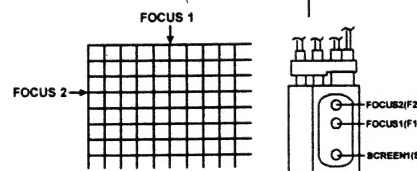
- 1) After completing the setting, return to the **SERVICE MENU**, then again press the **INFORMATION** key.

### CHECK ITEM

Item	Measuring instrument	Test point	Adjustment part	Description
Check of B1 Power supply	Signal Generator  DC voltmeter	TP-91(B1) TP-E(GND ↓) [X connector on POWER DEF PWB]		<ol style="list-style-type: none"> <li>1. Receive a any broadcast.</li> <li>2. Select 2.V/C from the <b>SERVICE MENU</b>.</li> <li>3. Select 1.RGB BLK with Function UP/DOWN key.</li> <li>4. Press the Function +/- key, the whole black screen display.</li> <li>5. Connect a DC voltmeter to TP-91(B1) and TP-E(GND ↓).</li> <li>6. Make sure that the voltage is <math>DC139.2V \pm 2.0V</math>.</li> </ol>
Check of High voltage	Signal generator  DC voltmeter	CRT anode		<ol style="list-style-type: none"> <li>1. Receive a and broadcast.</li> <li>2. Select 2.V/C from the <b>SERVICE MENU</b>.</li> <li>3. Select 1.RGB BLK with Function UP/DOWN key.</li> <li>4. Press the Function +/- key, the whole black screen display.</li> <li>5. Connect a DC voltmeter to CRT ANODE +1.0kV</li> <li>6. Make sure that the voltage is <math>31.0kV_{-1.5kV}</math>.</li> </ol>

### FOCUS ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of FOCUS [32"MODEL]	Signal generator		FOCUS 1 FOCUS 2 [In FBT]	<ol style="list-style-type: none"> <li>1. Receive a cross-hatch signal. Select <b>FULL</b> mode.</li> <li>2. By turning the FOCUS 1 VR, adjust the picture so that the 5th vertical line from the left side of the cross-hatch picture becomes thinnest.</li> <li>3. By turning the FOCUS 2 VR, adjust the picture so that the 3rd horizontal line from the upper side may become uniform at the line center and its periphery.</li> <li>4. Carry out adjustment by repeating the steps 2 and 3 above.</li> <li>5. Make sure that when the screen is darkened, the lines remain in good focus.</li> </ol>
Adjustment of FOCUS [28"MODEL]	Signal generator		FOCUS VR [In FBT]	<ol style="list-style-type: none"> <li>1. Receive a cross-hatch signal.</li> <li>2. While watching the screen, adjust the FOCUS VR to make the vertical and horizontal lines as fine and sharp as possible.</li> <li>3. Make sure that when the screen is darkened, the lines remain in good focus.</li> </ol>



# IFCIRCUIT ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description															
Adjustment of VCO [MAIN]	Remote control unit		P. CW TRANSF. (T050) P.L-VL CW TRIM. C (TC052) [On IF PWB]	<ul style="list-style-type: none"><li>Under normal conditions, no adjustment is required.</li><li>It must not adjust without signal.</li></ul> <ol style="list-style-type: none"><li>Receive a broadcast.</li><li>Select 1.IF from the SERVICE MENU.</li><li>Press 1 key and select 1.VCO.</li><li>Select a SECAM L or PAL broadcast channel with the CHANNEL key.</li><li>Turn the core of P. CW TRANSF. until the arrow mark (→) on the screen points TOO HIGH (Step 1).</li><li>Turn the core of P. CW TRANSF. until the arrow mark (→) on the screen points TOO LOW (Step 2).</li><li>Then slowly turn back the core of P. CW TRANSF. until the arrow mark (→) on the screen points JUST REF (Step 3).</li><li>In the district where SECAM L'(VHF LOW)s broadcast. can be received, select a SECAM L's broadcast channel with the CHANNEL key and adjust the P.L-VL CW TRIM.C in the same manner as for above steps. And readjust P.CW TRANSF., if necessary.</li><li>Press the INFORMATION key three times to return to normal screen.</li><li>Perform CHANNEL PRESET again, and make sure that each broadcast is being received properly.</li></ol>															
<div><div>VCO(CW)=MAIN ← MHz MAIN ← IV</div><div>TOO HIGH ABOVE REF JUST REF BELOW REF TOO LOW EXIT</div></div> <table><thead><tr><th rowspan="2">Screen display</th><th colspan="3">Step</th></tr><tr><th>1</th><th>2</th><th>3</th></tr></thead><tbody><tr><td>TOO HIGH ABOVE REFERENCE JUST REFERENCE BELOW REFERENCE TOO LOW</td><td>←</td><td></td><td>←</td></tr><tr><td></td><td></td><td>←</td><td></td></tr></tbody></table>					Screen display	Step			1	2	3	TOO HIGH ABOVE REFERENCE JUST REFERENCE BELOW REFERENCE TOO LOW	←		←			←	
Screen display	Step																		
	1	2	3																
TOO HIGH ABOVE REFERENCE JUST REFERENCE BELOW REFERENCE TOO LOW	←		←																
		←																	
Adjustment of DELAY POINT	Remote control unit		DELAY POINT (AGC TAKE-OVER)	<ol style="list-style-type: none"><li>Receive a black and white signal (colour off).</li><li>Select 1.IF from the SERVICE MENU.</li><li>Select 2.DELAY POINT by pressing the 2 key on the remote control.</li><li>Select MAIN or SUB with FUNCTION UP/DOWN key.</li><li>Adjust the FUNCTION - or + key until video noise disappears.</li><li>Press the MENU key and memorize the set value.</li><li>Turn to other channels and make sure that there are no irregularities.</li></ol>															
<table><thead><tr><th>Setting item (Adjustment item)</th><th>Variable range</th><th>Initial setting value</th></tr></thead><tbody><tr><td>DELAY POINT (AGC TAKE-OVER)</td><td>0~63</td><td>35</td></tr></tbody></table>					Setting item (Adjustment item)	Variable range	Initial setting value	DELAY POINT (AGC TAKE-OVER)	0~63	35									
Setting item (Adjustment item)	Variable range	Initial setting value																	
DELAY POINT (AGC TAKE-OVER)	0~63	35																	
Adjustment of L.V. LEVEL	Signal generator Oscilloscope [H-rate] Remote control unit	EXT-1 ⑩pin (TV OUT)		<ol style="list-style-type: none"><li>Receive a SECAM-L full field colour bar signal (100% white).</li><li>Connect an oscilloscope terminated 75 Ω to EXT-1 terminal of ⑩pin (TV out).</li><li>Select 1. IF from the SERVICE MENU.</li><li>Press 3 key and select 3.LV LEVEL.</li><li>Adjust the LV LEVEL by FUNCTION +/- key and make the wave detector output 1.0Vp-p.</li><li>Press the MENU key and memorize the set value.</li></ol>															
<div><div>1.0Vp-p</div></div>																			

# VSM PRESET SETTING

Item	Measuring instrument	Test point	Adjustment parts	Description																																																												
Setting of VSM PRESET ADJUST	Remote control unit		1. BRIGHT 2. CONT. 3. COLOUR 4. SHARP 5. HUE 6. WDR R 7. WDR G 8. WDR B 9. BASS 10. TREBLE	<ol style="list-style-type: none"> <li>Select COOL with the MENU key of the remote control unit.</li> <li>Select 5.VSM PRESET from the SERVICE MENU.</li> <li>Adjust the FUNCTION UP/DOWN and +/- key to bring the set values of 1.BRIGHT ~ 10.TREBLE to the values shown in the table.</li> <li>Press the MENU key and memorize the set value.</li> <li>Respectively select the VSM PRESET mode for NORMAL and WARM, and make similar adjustment as in 3 above.</li> <li>Press the MENU key and memorize the set value.</li> <li>Refer to OPERATING INSTRUCTIONS for the PICTURE MODE.</li> </ol>																																																												
<table border="1"> <thead> <tr> <th colspan="2">VSM preset mode</th><th>COOL</th><th>NORMAL</th><th>WARM</th></tr> </thead> <tbody> <tr> <td>Setting item</td><td></td><td></td><td></td><td></td></tr> <tr> <td>1. BRIGHT SETTING VALUE</td><td></td><td>-3</td><td>+0</td><td>+0</td></tr> <tr> <td>2. CONT. SETTING VALUE</td><td></td><td>+12</td><td>-4</td><td>-12</td></tr> <tr> <td>3. COLOUR SETTING VALUE</td><td></td><td>+2</td><td>-1</td><td>+0</td></tr> <tr> <td>4. SHARP SETTING VALUE</td><td></td><td>+2</td><td>+2</td><td>+0</td></tr> <tr> <td>5. HUE SETTING VALUE</td><td></td><td>+0</td><td>+0</td><td>+0</td></tr> <tr> <td>6. WDR R SETTING VALUE</td><td></td><td>-16</td><td>+5</td><td>+11</td></tr> <tr> <td>7. WDR G SETTING VALUE</td><td></td><td>-4</td><td>+6</td><td>+5</td></tr> <tr> <td>8. WDR B SETTING VALUE</td><td></td><td>+2</td><td>+0</td><td>-6</td></tr> <tr> <td>9. BASS SETTING VALUE</td><td></td><td>+0</td><td>+0</td><td>+0</td></tr> <tr> <td>10. TREBLE SETTING VALUE</td><td></td><td>+0</td><td>+0</td><td>+0</td></tr> </tbody> </table>					VSM preset mode		COOL	NORMAL	WARM	Setting item					1. BRIGHT SETTING VALUE		-3	+0	+0	2. CONT. SETTING VALUE		+12	-4	-12	3. COLOUR SETTING VALUE		+2	-1	+0	4. SHARP SETTING VALUE		+2	+2	+0	5. HUE SETTING VALUE		+0	+0	+0	6. WDR R SETTING VALUE		-16	+5	+11	7. WDR G SETTING VALUE		-4	+6	+5	8. WDR B SETTING VALUE		+2	+0	-6	9. BASS SETTING VALUE		+0	+0	+0	10. TREBLE SETTING VALUE		+0	+0	+0
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10. TREBLE SETTING VALUE		+0	+0	+0																																																												
SETTING VALUES OF VSM PRESET																																																																

# VIDEO/CHROMA CIRCUIT ADJUSTMENT [MAIN]

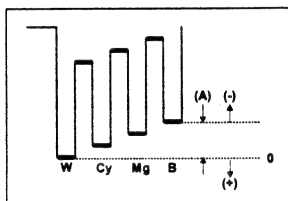
The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values.  
The setting values which adjust the screen to the optimum condition can be different from the initial setting values.

Setting Item (Adjustment Item)	Initial setting value		Colour system Setting item	Initial setting value	
	PAL / SECAM	NTSC 3.58 NTSC 4.43		PAL / SECAM	NTSC 3.58 NTSC 4.43
1.RGB BLK	—	—	8.BRIGHT	+000	—
2.WDR R	+010	—	9.CONT	+012	—
3.WDR G	-007	—	10.COLOUR	-008	-011
4.WDR B (Do not adjust)	+000	—	11.HUE	—	-002
5.CUT R	+000	—	12.CONT. LIMIT(Do not adjust)	+001	—
6.CUT G	+000	—	13.PURITY(Do not adjust)	+000	—
7.CUT B	+000	—			

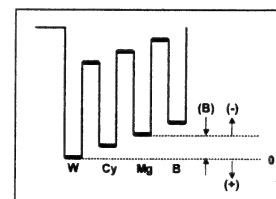
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of WHITE BALANCE	Signal generator Remote control unit		2.WDR R 3.WDR G 5.CUT R 6.CUT G 7.CUT B	<ul style="list-style-type: none"> <li>Set the PICTURE MODE to NORMAL.</li> <li>Receive a black and white signal(colour off).</li> <li>Select 2. V/C from the SERVICE MENU.</li> <li>Modify 2. WDR R and 3.WDR G data to adjust the white balance ( high light ).</li> <li>Modify 5. CUT R, 6. CUT G and 7. CUT B data to adjust the white balance ( low light).</li> <li>Press the MENU key and memorize the set value.</li> </ul>
Adjustment of SUB BRIGHT	Remote control unit		8.BRIGHT	<ol style="list-style-type: none"> <li>Receive any broadcast.</li> <li>Select 2.V/C from the SERVICE MENU.</li> <li>Select 8.BRIGHT with the FUNCTION UP/DOWN key.</li> <li>Set the initial setting value with the FUNCTION +/- key.</li> <li>If the brightness is not the best with the initial setting value, make fine adjustment until you get the best brightness.</li> <li>Press the MENU key and memorize the set value.</li> </ol>
Adjustment of SUB CONT.	Remote control unit		9.CONT.	<ol style="list-style-type: none"> <li>Receive any broadcast.</li> <li>Select 2.V/C from the SERVICE MENU.</li> <li>Select 9.CONT with the FUNCTION UP/DOWN key.</li> <li>Set the initial setting value with the FUNCTION - or + key.</li> <li>If the contrast is not the best with the initial setting value, make fine adjustment until you get the best contrast.</li> <li>Press the MENU key and memorize the set value.</li> </ol>

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB COLOUR I	Remote control unit		10.COLOUR (PAL~NTSC)	[Method of adjustment without measuring instrument]
			PAL COLOUR	(PAL COLOUR) <ol style="list-style-type: none"> <li>Receive PAL broadcast.</li> <li>Select 2.V/C from the SERVICE MENU.</li> <li>Select 10.COLOUR with the FUNCTION UP/DOWN key.</li> <li>Set the initial setting value for PAL COLOUR with the FUNCTION - or + key.</li> <li>If the colour is not the best with the initial set value, make fine adjustment until you get the best colour.</li> <li>Press the MENU key and memorize the set value.</li> </ol>
			SECAM COLOUR	(SECAM COLOUR) <ol style="list-style-type: none"> <li>Receive a SECAM broadcast. Make fine adjustment of SECAM COLOUR in the same manner as for above.</li> </ol>
			NTSC COLOUR	(NTSC 3.58 COLOUR) <ol style="list-style-type: none"> <li>Input a NTSC 3.58MHz COMPOSITE VIDEO signal from the EXT terminal.</li> <li>Make similar fine adjustment of NTSC 3.58 COLOUR in the same manner as for above.</li> </ol>
				(NTSC 4.43 COLOUR) <ol style="list-style-type: none"> <li>When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.</li> </ol>

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB COLOUR II	Signal generator	TP-47B TP-E(↓) [CRT SOCKET PWB]	10.COLOUR (PAL~NTSC)	[Method of adjustment using measuring instrument]
	Oscilloscope		PAL COLOUR	(PAL COLOUR) 1. Receive a PAL full field colour bar signal(75% white). 2. Select 2.V/C from the SERVICE MENU. 3. Select 10.COLOUR with the FUNCTION UP/DOWN key. 4. Set the initial setting value of PAL COLOUR with the FUNCTION - or + key. 5. Connect the oscilloscope between TP-47B and TP-E 6. Adjust PAL COLOUR and bring the value of (A) in the illustration to -7V (voltage difference between white (w) and blue (B)). 7. Press the MENU key and memorize the setting value.
	Remote control unit		SECAM COLOUR	(SECAM COLOUR) 1. Receive a SECAM full field colour bar signal(75% white). 2. Set the initial setting value of SECAM COLOUR with the FUNCTION +/- key. 3. Adjust SECAM COLOUR and bring the value of (A) of the illustration to -6V(W~B). 4. Press the MENU key and memorize the setting value.
			NTSC COLOUR	(NTSC 3.58 COLOUR) 1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal. 2. Set the initial setting value of NTSC 3.58 COLOUR with the FUNCTION +/- key. 3. Adjust NTSC 3.58 COLOUR and bring the value of (A) of the illustration to -3V(W~B). 4. Press the MENU key and memorize the setting value.  (NTSC 4.43 COLOUR) 1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.



Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB HUE I	Remote control unit		11.HUE	[Method of adjustment without measuring instrument]
			NTSC 3.58 HUE	[NTSC 3.58 HUE] 1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal. 2. Select 2.V/C from the SERVICE MENU. 3. Select 11.HUE with the FUNCTION UP/DOWN key. 4. Set the initial setting value of NTSC 3.58 HUE with the FUNCTION +/- key. 5. If you cannot get the best hue with the initial setting value, make fine adjustment until you get the best hue. 6. Press the MENU key and memorize the set value.
			NTSC 4.43 HUE	[NTSC 4.43 HUE] 1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.
Adjustment of SUB HUE II	Signal generator	TP-47B TP-E(↓) [CRT SOCKET PWB]	11.HUE	[Method of adjustment using measuring instrument]
	Oscilloscope		NTSC 3.58 HUE	[NTSC 3.58 HUE] 1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal. 2. Select 2.V/C from the SERVICE MENU. 3. Select 11.HUE with the FUNCTION UP/DOWN key. 4. Set the initial setting value of NTSC 3.58 HUE with the FUNCTION - or + key. 5. Connect the oscilloscope between TP-47B and TP-E 6. Adjust NTSC 3.58 HUE to bring the value of (B) in the illustration to -13V (voltage difference between white (W) and magenta(Mg)). 7. Press the MENU key and memorize the setting value
	Remote control unit		NTSC 4.43 HUE	[NTSC 4.43 HUE] 1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.



## DEFLECTION CIRCUIT ADJUSTMENT

There are 2 modes of the adjustment ( 1 ) 100Hz mode ( ①FULL ②PANORAMIC, ③16:9 ZOOM SUBTITLE ), ( 2 ) 120Hz mode ( each aspect mode ) ..... depending upon the kind of signals ( vertical frequency 100Hz / 120Hz ).

- When the 100Hz FULL mode has been established, the setting of other modes will be done automatically. However, if the picture quality has not been optimized, adjust each mode again, respectively.
- The adjustment using the remote control unit is made on the basis of the initial setting values.
- The setting values which adjust the screen to the optimum condition can be different from the initial setting values. Regular and Zoom switching is conducted not by the Deflection circuit, but by the 100 Hz PWB. Therefore, the deflection system cannot be adjusted in these modes.

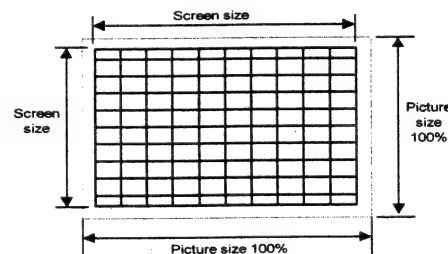
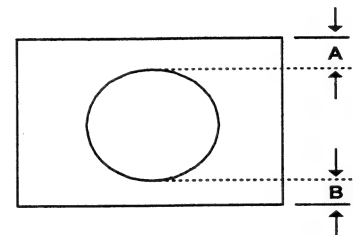
### [AV-32WZ4EP]

Setting item	Adjustment name	Initial setting value					
		FULL		PANORAMIC		16 : 9 ZOOM SUBTITLE	
		100Hz	120Hz	100Hz	120Hz	100Hz	120Hz
1.V- SHIFT	Vertical center	+1	-1	-2	0	-4	-2
2.V-SIZE	Vertical height	-5	-1	+2	+1	+2	+1
3.H-CENT	Horizontal center	-1	-2	+1	0	0	0
4.H-SIZE	Horizontal width	-7	-2	0	0	0	0
5.EW-PIN	Side pin correction	+22	0	+5	+2	+5	+2
6.TRAPEZ	Trapezoidal distortion correction	+3	0	+1	0	+1	-1
7.COR-UP	Corner upper correction	+2	+1	-1	-2	0	-1
8.COR LO	Corner lower correction	+1	0	-6	-3	-8	-2
9.ANGLE	Angle correction	0 (Fixed)	0 (Fixed)	0 (Fixed)	0 (Fixed)	0 (Fixed)	0 (Fixed)
10.BOW	Bow-shaped distortion correction	0 (Fixed)	0 (Fixed)	0 (Fixed)	0 (Fixed)	0 (Fixed)	0 (Fixed)
11.V-S.CR	Vertical heigh correction	+6 (Fixed)	0 (Fixed)	+9 (Fixed)	0 (Fixed)	+11 (Fixed)	0 (Fixed)
12.V-LIN	Vertical Linearity	-7 (Fixed)	+2 (Fixed)	-22 (Fixed)	0 (Fixed)	-30 (Fixed)	0 (Fixed)

### [AV-28WZ4EP / AV-28WZ4EPS]

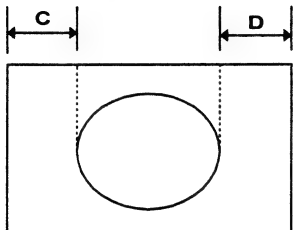
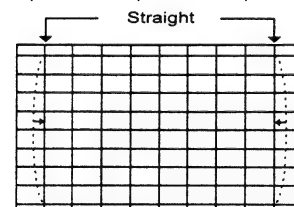
Setting item	Adjustment name	Initial setting value					
		FULL		PANORAMIC		16 : 9 ZOOM SUBTITLE	
		100Hz	120Hz	100Hz	120Hz	100Hz	120Hz
1.V- SHIFT	Vertical center	-1	-2	-2	+1	-5	-1
2.V-SIZE	Vertical height	-5	-2	+3	+1	+3	+1
3.H-CENT	Horizontal center	-2	-1	+1	0	0	0
4.H-SIZE	Horizontal width	-11	-2	0	0	0	0
5.EW-PIN	Side pin correction	+21	-1	+4	0	+6	0
6.TRAPEZ	Trapezoidal distortion correction	0	0	0	0	0	-1
7.COR-UP	Corner upper correction	-3	+1	-1	+1	-1	0
8.COR LO	Corner lower correction	+3	0	-5	+1	-8	+1
9.ANGLE	Angle correction	0 (Fixed)	0 (Fixed)	0 (Fixed)	0 (Fixed)	0 (Fixed)	0 (Fixed)
10.BOW	Bow-shaped distortion correction	0 (Fixed)	0 (Fixed)	0 (Fixed)	0 (Fixed)	0 (Fixed)	0 (Fixed)
11.V-S.CR	Vertical heigh correction	+7 (Fixed)	0 (Fixed)	+6 (Fixed)	0 (Fixed)	+8 (Fixed)	0 (Fixed)
12.V-LIN	Vertical Linearity	-7 (Fixed)	+2 (Fixed)	-22 (Fixed)	0 (Fixed)	-30 (Fixed)	0 (Fixed)

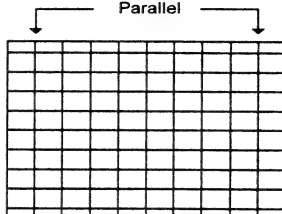
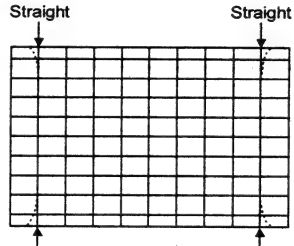
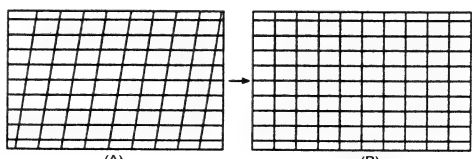
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of V-SHIFT	Signal generator		1.V- SHIFT	[FULL mode] 1. Receive a circle pattern signal of vertical frequency 50Hz. 2. Select 4.DEF from the SERVICE MENU. 3. Select 1.V-SHIFT with the FUNCTION UP/DOWN key. 4. Adjust V-SHIFT to make A = B. 5. Press the MENU key and memorize the set value.
	Remote control unit			
Adjustment of V-SIZE			2.V-SIZE	6. Receive a cross-hatch signal. 7. Select 2.V-SIZE and set the initial setting value. 8. Adjust V-SIZE and make sure that the vertical screen size of the picture size is in the below table. 9. Press the MENU key and memorize the set value. 10. Input a NTSC VIDEO signal (60Hz) from the EXT terminal, and make sure that the vertical screen size is in the table below. 11. Press the MENU key and memorize the set value.

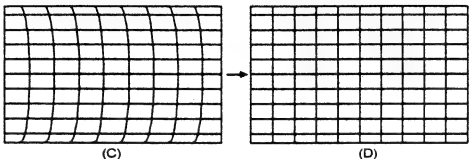
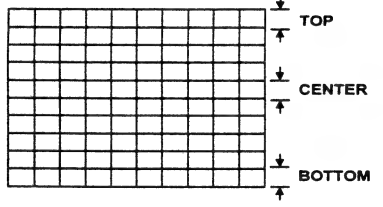


ASPECT MODE	FULL	PANORAMIC	16:9 ZOOM SUB TITLE
SCREEN TOP	92%	87%	70%
SCREEN BOTTOM	92%	87%	83%

[ SCREEN SIZE ]

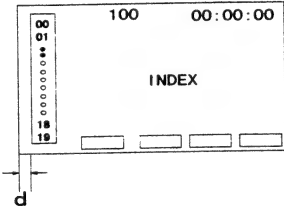
Item	Measuring instrument	Test point	Adjustment part	Description								
Adjustment of H.CENTER	Signal generator Remote control unit		3.H-CENT.	12. Receive a circle pattern signal. 13. Select 4.H-CENT and set the initial setting value. 14. Adjust H-CENT to make C=D. 15. Press the MENU key and memorize the set value.								
												
Adjustment of H.SIZE			4.H-SIZE	16. Receive a cross-hatch signal. 17. Select 4.H-SIZE and set the initial setting value. 18. Adjust H-SIZE and make sure that the horizontal screen size of the picture size is in the bellow table. 19. Press the MENU key and memorize the set value. 20. Input a NTSC VIDEO signal (60Hz) from the EXT terminal, and make sure that the horizontal screen size is in the table below. 21. Press the MENU key and memorize the set value.								
<table border="1"> <thead> <tr> <th>ASPECT MODE</th> <th>FULL</th> <th>PANORAMIC</th> <th>16:9 ZOOM SUBTITLE</th> </tr> </thead> <tbody> <tr> <td>H SIZE</td> <td>92%</td> <td>95%</td> <td>92%</td> </tr> </tbody> </table> <p>[ SCREEN SIZE ]</p>					ASPECT MODE	FULL	PANORAMIC	16:9 ZOOM SUBTITLE	H SIZE	92%	95%	92%
ASPECT MODE	FULL	PANORAMIC	16:9 ZOOM SUBTITLE									
H SIZE	92%	95%	92%									
Adjustment of EW-PIN			5.EW-PIN	22. Select 5.EW-PIN and set the initial setting value 23. Adjust EW-PIN and make the 2nd.vertical lines at the left and right edges of the screen straight. Also make sure that the 3rd vertical lines are straight. 24. Press the MENU key and memorize the set value.								
												

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of TRAPEZ	Signal generator Remote control unit		6.TRAPEZ	<p>25. Receive a cross-hatch signal.</p> <p>26. Select 6.TRAPEZ with the FUNCTION UP/DOWN key.</p> <p>27. Set the initial setting value of TRAPEZ with the FUNCTION - or + key.</p> <p>28. Adjust TRAPEZ and bring the VERTICAL lines at the right and left edges of the screen parallel.</p> <p>29. Press the MENU key and memorize the set value.</p>
				
Adjustment of CORNER UP/ LOW	Signal generator Remote control unit		7.COR-UP 8.COR-LO	<p>30. Select 8.COR-LO with the FUNCTION UP / DOWN key.</p> <p>31. Set the initial setting value of COR-LO with the FUNCTION - or + key.</p> <p>32. Adjust COR-LO, and bring the straight line at the low corner.</p> <p>33. Select 7.COR-UP with the FUNCTION UP / DOWN key.</p> <p>34. Set the initial setting value of COR-UP with the FUNCTION - or + key.</p> <p>35. Adjust COR-UP, and bring the straight line at the upper corner.</p> <p>36. Press the MENU key and memorize the set value.</p>
				
Adjustment of ANGLE	Signal generator Remote control unit		9.ANGLE	<p>● In case where there is a parallelogrammatical distortion of images on the screen. (Fig. A)</p> <p>37. Select 9.ANGLE with the FUNCTION UP / DOWN key.</p> <p>38. Adjust ANGLE, and bring the VERTICAL lines straight.</p> <p>39. Press the MENU key and memorize the set value.</p>
				

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of BOW	Signal generator Remote control unit		10.BOW	<ul style="list-style-type: none"> <li>In case where there is a bow-shaped distortion of images on the screen. (Fig.C)</li> </ul> <p>40. Select 10.BOW with the FUNCTION UP/DOWN key. 41. Adjust BOW, and bring the VERTICAL lines straight. 42. Press the MENU key and memorize the set value.</p>
				
Adjustment of V-S.CR & V.LINE			11.V-S.CR 12.V.LIN.	<ul style="list-style-type: none"> <li>When the vertical linearity has been deteriorated remarkably, perform the following steps.</li> </ul> <p>43. Receive a cross-hatch signal. 44. Select 12. V.LIN with the FUNCTION UP / DOWN key. 45. Set the initial setting value of 12. V.LIN with the FUNCTION -/+ key. 46. Select 11. V-S.CR. with the FUNCTION UP / DOWN key. 47. Set the initial setting value of 11. V-S.CR. with the FUNCTION -/+ key. 48. Adjust 12. V.LIN and 11. V-S.CR. so that the spaces of each line on TOP, CENTER, and BOTTOM become uniform.</p> <p>NOTE : Do not adjust "PANORAMIC" &amp; "16 : 9 ZOOM SUBTITLE" mode.</p>
				
<p>At first the adjustment in 100Hz-FULL mode should be done, then the data for the other aspect mode is corrected in the respective value at the same time. And confirm the deflection adjustment initial setting value in 120Hz (NTSC EXT mode) FULL mode. If the adjustment in 100Hz each aspect mode has been done and stored, the data for the same aspect modes in 120Hz is corrected in the respective value. Only the data for the other aspect mode in 120Hz is corrected for itself.</p>				

## TEXT CIRCUIT ADJUSTMENT

Setting item	Variable rang	Initial setting Value
1. TEXT MONO H	00H ~ FFH	0DH
2. TEXT MIX H (Do not adjust)	00H ~ FFH	00H

Item	Measuring instrument	Test point	Adjustment part	Description				
Adjustment of TEXT MONO HORIZONTAL POSITION			1.TEXT MONO H	<ul style="list-style-type: none"><li>Under normal conditions, no adjustment is required.</li></ul> <ol style="list-style-type: none"><li>Select 8.OSD / TEXT from SERVICE MENU.</li><li>Select 1.TEXT MONO H with the FUNCTION UP/DOWN key.</li><li>Push text key to get a picture of "TEXT-MONO H".</li><li>Push "SUBPAGE" key. It gets a picture as shown left.</li><li>Adjust the value of the distance "d" as shown left with the FUNCTION +/- key. Push "SUBPAGE" key to check adjustment every adjust.</li><li>Press the MENU Key, and memorize the set values.</li></ol>				
<div></div> <table border="1" data-bbox="1214 820 1547 871"><tr><td>MODEL</td><td>d</td></tr><tr><td>ALL MODELS</td><td>5~20mm</td></tr></table>					MODEL	d	ALL MODELS	5~20mm
MODEL	d							
ALL MODELS	5~20mm							

## AUDIO CIRCUIT ADJUSTMENT


### 3. AUDIO

Setting item	Variable range	fixed value
1. CONC LIMIT(Do not adjust)	00H~FFH	0AH
2. A2 ID THR(Do not adjust)	00H~FFH	19H



PARTS LIST

CAUTION

- The parts identified by the  symbol are important for the safety. Whenever replacing these parts, be sure to use specified ones to secure the safety.
- The parts not indicated in this Parts List and those which are filled with lines — in the Parts No. columns will not be supplied.
- P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
C R	Carbon Resistor	C CAP.	Ceramic Capacitor
F R	Fusible Resistor	E CAP.	Electrolytic Capacitor
P R	Plate Resistor	M CAP.	Mylar Capacitor
V R	Variable Resistor	HV CAP.	High Voltage Capacitor
HV R	High Voltage Resistor	MF CAP.	Metalized Film Capacitor
MF R	Metal Film Resistor	MM CAP.	Metalized Mylar Capacitor
MG R	Metal Glazed Resistor	MP CAP.	Metalized Polystyrol Capacitor
MP R	Metal Plate Resistor	PP CAP.	Polypropylene Capacitor
OM R	Metal Oxide Film Resistor	PS CAP.	Polystyrol Capacitor
CMF R	Coating Metal Film Resistor	TF CAP.	Thin Film Capacitor
UNF R	Non-Flammable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH V R	Chip Variable Resistor	TAN. CAP.	Tantalum Capacitor
CH MG R	Chip Metal Glazed Resistor	CH C CAP.	Chip Ceramic Capacitor
COMP. R	Composition Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

TOLERANCES									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% -0%

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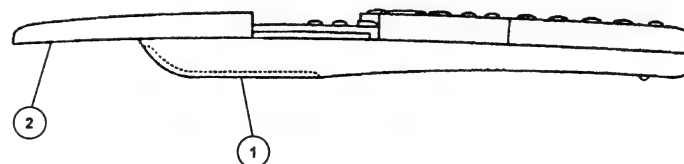
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## USING PW BOARD & REMOTE CONTROL UNIT

PWB ASS'Y \ Model	AV-32WZ4EP	AV-28WZ4EP AV-28WZ4EPS
MAIN PWB	SMD-1002A-U2	SMD-1003A-U2
POWER / DEF PWB	SMD-2002A-U2	SMD-2003A-U2
DOLBY PWB	SMD0D001A-U2	←
IF PWB	SMD0F001A-U2	←
SUB MICON & AUTO PANORAMA PWB	SMD0W001A-U2	←
100Hz PWB	SMD0Z002A-U2	SMD0Z003A-U2
CRT SOCKET PWB	SMD-3003A-U2	SMD-3002A-U2
AUDIO PWB	SMD-6002A-U2	←
FRONT CONTROL PWB	SMD-8002A-U2	←
AV TERMINAL PWB	SMD0J001A-U2	←
REMOTE CONTROL UNIT	RM-C793-1E	←

## REMOTE CONTROL UNIT PARTS LIST (RM-C793-1E)

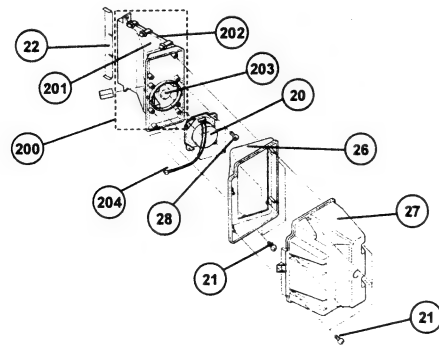
△ Ref. No.	Part No.	Part Name	Description	Local
1	BGV110201A	BATTERY COVER		
2	BGV110307A	SLIDE COVER		



## AV-32WZ4EP

## EXPLODED VIEW PARTS LIST

△ Ref.No.	Part No.	Part Name	Description	Local
△ V01	W76ESF031X44	ITC TUBE(C)	Inc.DY.PC.WED	*
△ L01	CELD062-001J2	DEGAUSSING COIL		*
△ L03	CELD904-001	ROTATION COIL		*
△ T2551	QGH0054-002-I2	FBT	(SERVICE)	*
△ 1	CM12737-003-E	REAR COVER		*
△ 2	GBSA4016N	TAPPING SCREW	(×13)For REAR COVER	*
△ 3	LC20092-008A-U	RATING LABEL	For ENG/GER/FRA	*
△ 4	LC20093-008A-U	RATING LABEL	For ENG/GER/ITA	*
5	CM12923-A01-E	CHASSIS BASE		*
6	LC10385-001B-U	AV BOARD		*
7	QYS85B3012M	TAPPING SCREW	(×9)For AV BOARD	*
8	CM12925-B01-E	CONTROL BASE L		*
9	CM12925-A02-E	CONTROL BASE R		*
10	QNZ0407-001	ANODE WIRE ASSY		*
11	CHFD125-108D	FFC WIRE		*
△ 12	AEEMP001-185	POWER CORD		*
△ 13	CM46618-A01-E	POWER CORD CLAMP		*
14	CHGB0029-0C	BRAIDED ASSY		*
15	CHGB0017-0B	BRAIDED SUB ASSY	(×2)	*
16	CE42112-002	PALJ CONNECTOR		*
17	QQR0491-001	FILTER		*
18	CM36311-001	KNOB CAP		*
20	CEBSF10P-05KJ6	SPEAKER	(×2)SP01,SP02	*
21	GBSA4016N	TAPPING SCREW	(×20)For DOME BOX	*
22	CM22951-001	DOME SPACER	(×2)	*
24	SBSB3012M	TAPPING SCREW	For OPERATION SHEET	*
25	CHGY0017-0A-YS	ANTENNA CABLE		*
26	CM12921-001-E	DOME ADAPTER	(×2)	*
27	CM12922-A01-E	DOME BOX	(×2)	*
28	GBSA4016N	TAPPING SCREW	(×8)For SPEAKER	*
29	GBSA4016N	TAPPING SCREW	(×4)For DOME SPEAKER	*
200	2528MXSP-SZE-E	DOME SPEAKER	(×2) Inc.No.201~204	*
201	CM12463-D01-E	HORN	(×2)	*
202	CM12464-D01-E	HORN PANEL	(×2)	*
203	CEBS503K-03KJ2	SPEAKER	(×2)	*
204	CHGS0057-AA-N	S.P. WIRE ASSY	(×2)	*
100	CM12587-B00-E	F.CABINET ASSY	Inc.No.101~113	*
101	CM12966-A01-E	FRONT PANEL		*
102	CM48229-00A	DOOR LATCH		*
103	CM36223-001	L.E.D. LENS		*
104	CM36857-001	OPERATION SHEET		*
105	CM23131-003-E	DOOR	(SERVICE)	*
106	CM36172-00A-S	SPEAKER NET	(×2)	*
107	CM36225-010-E	POWER KNOB	(SERVICE)	*
108	CM35235-003-H	SPRING		*
109	CM48125-001	JVC MARK		*
110	CM48076-A01	CDS WINDOW		*
111	CM35893-A01-E	CHASSIS RAIL	(×2)	*
112	CM35865-00U	INSULATOR	(SERVICE)	*
113	CM35865-00V	INSULATOR	(SERVICE)	*

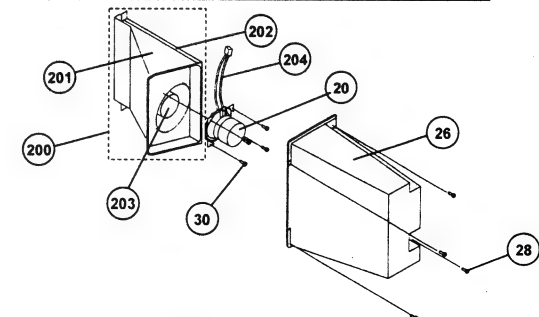
EXPLODED VIEW I  
DOME SPEAKER (32")

No. 51551

## AV-28WZ4EP / AV-28WZ4EPS

## EXPLODED VIEW PARTS LIST

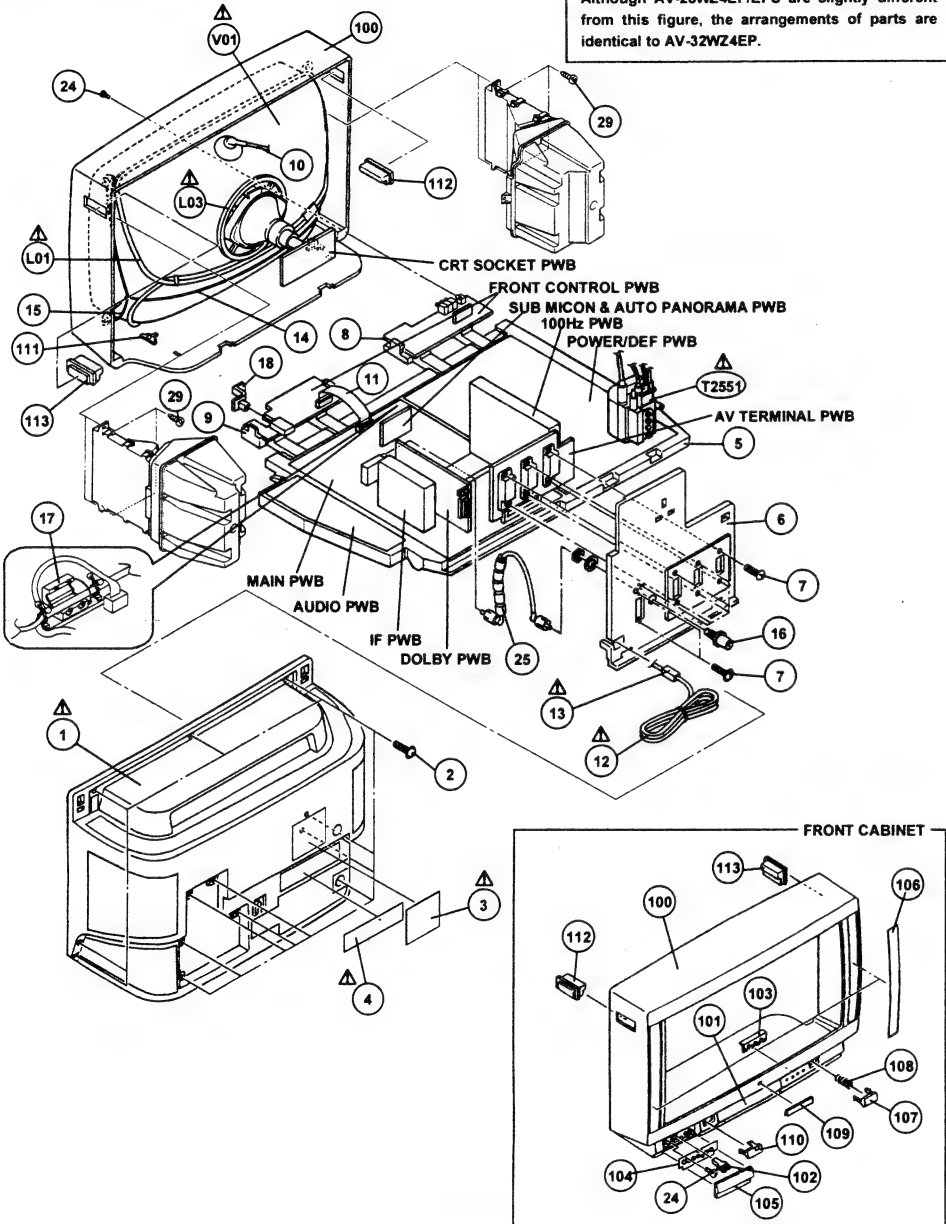
△ Ref.No.	Part No.	Part Name	Description	Local
△ V01	W66ESF002X44	ITC TUBE(C)	Inc.DY.PC.WED	*
△ L01	CELD061-001J2	DEGAUSSING COIL		*
△ L03	CELD904-001	ROTATION COIL		*
△ T2551	CETH026-00B	FBT	(SERVICE)	*
△ 1	CM12582-A04-E	REAR COVER		*
△ 2	GBSA4016N	TAPPING SCREW	(×13)For REAR COVER	*
△ 3	LC20092-007A-U	RATING LABEL	For ENG/GER/FRA AV-28WZ4EP	*
△ 3	LC20092-016A-U	RATING LABEL	For ENG/GER/FRA AV-28WZ4EPS	*
△ 4	LC20093-007A-U	RATING LABEL	For ENG/GER/ITA AV-28WZ4EP	*
△ 4	LC20093-016A-U	RATING LABEL	For ENG/GER/ITA AV-28WZ4EPS	*
5	CM12923-A01-E	CHASSIS BASE		*
6	LC10385-001B-U	AV BOARD		*
7	QYS85B3012M	TAPPING SCREW	(×9)For AV BOARD	*
8	CM12925-B03-E	CONTROL BASE L		*
9	CM12925-A04-E	CONTROL BASE R		*
10	CETW004-055	ANODE WIRE		*
11	CHFD125-06BD	FFC WIRE		*
△ 12	AEEMP001-185	POWER CORD		*
△ 13	CM46618-A01-E	POWER CORD CLAMP		*
14	CHGB0029-0B	BRAIDED ASSY		*
15	CHGB0017-0B	BRAIDED SUB ASSY	(×2)	*
16	CE42112-002	PALJ CONNECTOR		*
17	QQR0491-001	FILTER		*
18	CM36311-001	KNOB CAP		*
20	CEBSF10P-05KJ6	SPEAKER	(×2)SP01,SP02	*
25	CHGY0017-0A-YS	ANTENNA CABLE		*
26	CM12878-B01-E	DOME BOX	(×2)	*
28	GBSA4016N	TAPPING SCREW	(×8)For SPEAKER BOX	*
30	GBSA4016N	TAPPING SCREW	(×8)For SPEAKER	*
200	2528MXSP-SZE-E	DOME SPEAKER	(×2) Inc.No.201~204	*
201	CM12463-D01-E	HORN	(×2)	*
202	CM12464-D01-E	HORN PANEL	(×2)	*
203	CEBS503K-03KJ2	SPEAKER	(×2)	*
204	CHGS0057-AA-N	S.P. WIRE ASSY	(×2)	*
100	CM12833-A0L-E	F.CABINET ASSY	Inc.No.101~113 AV-28WZ4EP	*
100	CM12833-A0K-E	F.CABINET ASSY	Inc.No.101~113 AV-28WZ4EPS	*
101	CM12966-A01-E	FRONT PANEL		*
102	CM48229-00A	DOOR LATCH		*
103	CM36223-001	L.E.D. LENS		*
104	CM36587-002	OPERATION SHEET		*
105	CM23132-010-E	DOOR	(SERVICE) AV-28WZ4EP	*
105	CM23132-008-E	DOOR	(SERVICE) AV-28WZ4EPS	*
106	CM36171-00A-H	SPEAKER NET	(×2) AV-28WZ4EP	*
106	CM36171-00C-H	SPEAKER NET	(×2) AV-28WZ4EPS	*
107	CM36225-010-E	POWER KNOB	(SERVICE)	*
108	CM35235-003-H	SPRING		*
109	CM48125-001	JVC MARK	AV-28WZ4EP	*
109	CM48125-004	JVC MARK	AV-28WZ4EPS	*
110	CM48076-A01	CDS WINDOW		*
111	CM35893-A01-E	CHASSIS RAIL	(×2)	*
112	CM35865-00U	INSULATOR	(SERVICE)	*
113	CM35865-00V	INSULATOR	(SERVICE)	*

EXPLODED VIEW II  
DOME SPEAKER (28")

No. 51551

# AV-32WZ4EP / AV-28WZ4EP / AV-28WZ4EPS

## EXPLODED VIEW III



## AV-32WZ4EP

## PRINTED WIRING BOARD PARTS LIST

### MAIN PW BOARD ASS'Y (SMD-1002A-U2)

Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R1002	NRSA02J-103X	MG R	10kΩ 1/10W J *	
R1003-06	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R1101-03	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R1104	NRSA02J-681X	MG R	680Ω 1/10W J *	
R1105	NRSA02J-392X	MG R	3.9kΩ 1/10W J *	
R1107	NRSA02J-391X	MG R	390Ω 1/10W J *	
R1108	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R1109	NRSA02J-103X	MG R	10kΩ 1/10W J *	
R1110	NRSA02J-472X	MG R	4.7kΩ 1/10W J *	
R1111	NRSA02J-821X	MG R	820Ω 1/10W J *	
R1112	NRSA02J-101X	MG R	100Ω 1/10W J *	
R1113	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R1121-22	NRSA02J-0R0X	MG R	0.0Ω 1/10W J *	
R1123	NRSA02J-152X	MG R	1.5kΩ 1/10W J *	
R1124	NRSA02J-821X	MG R	820Ω 1/10W J *	
R1125-27	NRSA02J-103X	MG R	10kΩ 1/10W J *	
R1128	NRSA02J-153X	MG R	15kΩ 1/10W J *	
R1131-33	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R1134	NRSA02J-681X	MG R	680Ω 1/10W J *	
R1135	NRSA02J-561X	MG R	560Ω 1/10W J *	
R1136	NRSA02J-681X	MG R	680Ω 1/10W J *	
R1137	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R1138	NRSA02J-391X	MG R	390Ω 1/10W J *	
R1140	NRSA02J-103X	MG R	10kΩ 1/10W J *	
R1141	NRSA02J-472X	MG R	4.7kΩ 1/10W J *	
R1142	NRSA02J-821X	MG R	820Ω 1/10W J *	
R1151	NRSA02J-222X	MG R	2.2kΩ 1/10W J *	
R1152-53	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R1154	NRSA02J-681X	MG R	680Ω 1/10W J *	
R1155	NRSA02J-561X	MG R	560Ω 1/10W J *	
R1156	NRSA02J-681X	MG R	680Ω 1/10W J *	
R1157	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R1158	NRSA02J-391X	MG R	390Ω 1/10W J *	
R1160	NRSA02J-103X	MG R	10kΩ 1/10W J *	
R1161	NRSA02J-472X	MG R	4.7kΩ 1/10W J *	
R1162	NRSA02J-821X	MG R	820Ω 1/10W J *	
R1171	NRSA02J-103X	MG R	10kΩ 1/10W J *	
R1172	NRSA02J-562X	MG R	5.6kΩ 1/10W J *	
R1173	NRSA02J-221X	MG R	220Ω 1/10W J *	
R1174	NRSA02J-272X	MG R	2.7kΩ 1/10W J *	
R1175	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R1176	NRSA02J-392X	MG R	3.9kΩ 1/10W J *	
R1177	NRSA02J-472X	MG R	4.7kΩ 1/10W J *	
R1178	NRSA02J-0R0X	MG R	0.0Ω 1/10W J *	
R1179	NRSA02J-272X	MG R	2.7kΩ 1/10W J *	
R1201-02	NRSA02J-103X	MG R	10kΩ 1/10W J *	
R1203	NRSA02J-750X	MG R	75Ω 1/10W J *	
R1204	QRK126J-151X	C R	150Ω 1/2W J *	
R1205	NRSA02J-101X	MG R	100Ω 1/10W J *	
R1206	QRG01GJ-101	OM R	100Ω 1W J *	
R1207	NRSA02J-223X	MG R	2.2kΩ 1/10W J *	
R1208	NRSA02J-473X	MG R	47kΩ 1/10W J *	
R1209	NRSA02J-683X	MG R	68kΩ 1/10W J *	
R1210	NRSA02J-153X	MG R	15kΩ 1/10W J *	
R1211	NRSA02J-103X	MG R	10kΩ 1/10W J *	
R1212	NRSA02J-473X	MG R	47kΩ 1/10W J *	
R1213	NRSA02J-273X	MG R	27kΩ 1/10W J *	
R1214	NRSA02J-103X	MG R	10kΩ 1/10W J *	
R1215	NRSA02J-222X	MG R	2.2kΩ 1/10W J *	
R1216	NRSA02J-333X	MG R	33kΩ 1/10W J *	
R1217	NRSA02J-222X	MG R	2.2kΩ 1/10W J *	

Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R1218	NRSA02J-333X	MG R	33kΩ 1/10W J *	
R1219	NRSA02J-823X	MG R	82kΩ 1/10W J *	
R1220	NRSA02J-0R0X	MG R	0.0Ω 1/10W J *	
R1221	NRSA02J-391X	MG R	390Ω 1/10W J *	
R1222	NRSA02J-823X	MG R	82kΩ 1/10W J *	
R1223	NRSA02J-0R0X	MG R	0.0Ω 1/10W J *	
R1224	NRSA02J-391X	MG R	390Ω 1/10W J *	
R1225-26	NRSA02J-223X	MG R	22kΩ 1/10W J *	
R1227	NRSA02J-104X	MG R	100kΩ 1/10W J *	
R1228	NRSA02J-680X	MG R	68kΩ 1/10W J *	
R1229	QRK126J-181X	C R	180Ω 1/2W J *	
R1231	QRG01GJ-101	OM R	100Ω 1W J *	
R1232	NRSA02J-101X	MG R	100Ω 1/10W J *	
R1233	NRSA02J-222X	MG R	2.2kΩ 1/10W J *	
R1242	NRSA02J-223X	MG R	22kΩ 1/10W J *	
R1243	NRSA02J-473X	MG R	47kΩ 1/10W J *	
R1244	NRSA02J-683X	MG R	68kΩ 1/10W J *	
R1245	NRSA02J-153X	MG R	15kΩ 1/10W J *	
R1246	NRSA02J-103X	MG R	10kΩ 1/10W J *	
R1247	NRSA02J-473X	MG R	47kΩ 1/10W J *	
R1248	NRSA02J-273X	MG R	27kΩ 1/10W J *	
R1249	NRSA02J-103X	MG R	10kΩ 1/10W J *	
R1250	NRSA02J-222X	MG R	2.2kΩ 1/10W J *	
R1251	NRSA02J-333X	MG R	33kΩ 1/10W J *	
R1252	NRSA02J-222X	MG R	2.2kΩ 1/10W J *	
R1253	NRSA02J-333X	MG R	33kΩ 1/10W J *	
R1254	NRSA02J-823X	MG R	82kΩ 1/10W J *	
R1255	NRSA02J-0R0X	MG R	0.0Ω 1/10W J *	
R1256	NRSA02J-391X	MG R	390Ω 1/10W J *	
R1257	NRSA02J-823X	MG R	82kΩ 1/10W J *	
R1258	NRSA02J-0R0X	MG R	0.0Ω 1/10W J *	
R1259	NRSA02J-391X	MG R	390Ω 1/10W J *	
R1260-61	NRSA02J-223X	MG R	22kΩ 1/10W J *	
R1262	NRSA02J-104X	MG R	100kΩ 1/10W J *	
R1263	NRSA02J-222X	MG R	2.2kΩ 1/10W J *	
R1264	NRSA02J-333X	MG R	33kΩ 1/10W J *	
R1265	NRSA02J-222X	MG R	2.2kΩ 1/10W J *	
R1266	NRSA02J-333X	MG R	33kΩ 1/10W J *	
R1267-69	NRSA02J-750X	MG R	75Ω 1/10W J *	
R1277-79	NRSA02J-750X	MG R	75Ω 1/10W J *	
R1280	NRSA02J-223X	MG R	22kΩ 1/10W J *	
R1281	NRSA02J-473X	MG R	47kΩ 1/10W J *	
R1282	NRSA02J-683X	MG R	68kΩ 1/10W J *	
R1283	NRSA02J-153X	MG R	15kΩ 1/10W J *	
R1284	NRSA02J-103X	MG R	10kΩ 1/10W J *	
R1285	NRSA02J-473X	MG R	47kΩ 1/10W J *	
R1286	NRSA02J-273X	MG R	27kΩ 1/10W J *	
R1287	NRSA02J-103X	MG R	10kΩ 1/10W J *	
R1288	NRSA02J-222X	MG R	2.2kΩ 1/10W J *	
R1289	NRSA02J-333X	MG R	33kΩ 1/10W J *	
R1290	NRSA02J-222X	MG R	2.2kΩ 1/10W J *	
R1291	NRSA02J-333X	MG R	33kΩ 1/10W J *	
R1292	NRSA02J-471X	MG R	470Ω 1/10W J *	
R1301	NRSA02J-221X	MG R	220Ω 1/10W J *	
R1302	NRSA02J-471X	MG R	470Ω 1/10W J *	
R1303	NRSA02J-221X	MG R	220Ω 1/10W J *	
R1304	NRSA02J-471X	MG R	470Ω 1/10W J *	
R1305	NRSA02J-221X	MG R	220Ω 1/10W J *	
R1306	NRSA02J-271X	MG R	270Ω 1/10W J *	
R1307	NRSA02J-221X	MG R	220Ω 1/10W J *	
R1308	NRSA02J-471X	MG R	470Ω 1/10W J *	

AV-32WZ4EP

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R1309	NRS402J-221X	MG R	220Ω 1/10W J *	
R1310	NRS402J-471X	MG R	470Ω 1/10W J *	
R1311	NRS402J-221X	MG R	220Ω 1/10W J *	
R1312	NRS402J-271X	MG R	270Ω 1/10W J *	
R1313	NRS402J-221X	MG R	220Ω 1/10W J *	
R1314-15	NRS402J-471X	MG R	470Ω 1/10W J *	
R1316	NRS402J-152X	MG R	1.5kΩ 1/10W J *	
R1317-18	NRS402J-101X	MG R	100Ω 1/10W J *	
R1319	NRS402J-152X	MG R	1.5kΩ 1/10W J *	
R1320	NRS402J-221X	MG R	220Ω 1/10W J *	
R1321	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1323-24	NRS402J-562X	MG R	5.6kΩ 1/10W J *	
R1326-29	NRS402J-152X	MG R	1.5kΩ 1/10W J *	
R1330	NRS402J-103X	MG R	100kΩ 1/10W J *	
R1331	NRS402J-221X	MG R	220Ω 1/10W J *	
R1332-33	NRS402J-471X	MG R	470Ω 1/10W J *	
R1334-35	NRS402J-152X	MG R	1.5kΩ 1/10W J *	
R1336	NRS402J-101X	MG R	100Ω 1/10W J *	
R1337	NRS402J-103X	MG R	100kΩ 1/10W J *	
R1338-40	NRS402J-101X	MG R	100Ω 1/10W J *	
R1341	NRS402J-183X	MG R	18kΩ 1/10W J *	
R1342	NRS402J-823X	MG R	82kΩ 1/10W J *	
R1343-44	NRS402J-101X	MG R	100Ω 1/10W J *	
R1345-46	NRS402J-103X	MG R	100kΩ 1/10W J *	
R1347	NRS402J-562X	MG R	5.6kΩ 1/10W J *	
R1348	NRS402J-471X	MG R	470Ω 1/10W J *	
R1349	NRS402J-152X	MG R	1.5kΩ 1/10W J *	
R1350	NRS402J-271X	MG R	270Ω 1/10W J *	
R1351	NRS402J-222X	MG R	2.2kΩ 1/10W J *	
R1372	NRS402J-274X	MG R	270kΩ 1/10W J *	
R1381	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1382	NRS402J-152X	MG R	1.5kΩ 1/10W J *	
R1383	NRS402J-822X	MG R	8.2kΩ 1/10W J *	
R1384	NRS402J-683X	MG R	68kΩ 1/10W J *	
R1385	NRS402J-273X	MG R	27kΩ 1/10W J *	
R1386	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1387	NRS402J-683X	MG R	68kΩ 1/10W J *	
R1388	NRS402J-273X	MG R	27kΩ 1/10W J *	
R1389	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1390	NRS402J-683X	MG R	68kΩ 1/10W J *	
R1391	NRS402J-273X	MG R	27kΩ 1/10W J *	
R1392	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1395-97	NRS402J-0R0X	MG R	0.0Ω 1/10W J *	
R1398	NRS402J-101X	MG R	100Ω 1/10W J *	
R1401-02	NRS402J-682X	MG R	6.8kΩ 1/10W J *	
R1403	NRS402J-222X	MG R	2.2kΩ 1/10W J *	
R1404	QR01G1-1R0	MF R	1.0Ω 1W J *	
R1405	QR02G1-2Z1	DM R	220Ω 2W J *	
R1406	NRS402J-222X	MG R	2.2kΩ 1/10W J *	
R1407	QR04G1-1R8	MF R	1.8Ω 1W J *	
R1408	QR04G1-1R5	MF R	1.5Ω 1W J *	
R1409-10	NRS402J-103X	MG R	100kΩ 1/10W J *	
R1461	NRS402J-272X	MG R	2.7kΩ 1/10W J *	
R1462	NRS402J-563X	MG R	56kΩ 1/10W J *	
R1463	NRS402J-104X	MG R	100kΩ 1/10W J *	
R1464	NRS402J-123X	MG R	12kΩ 1/10W J *	
R1501	NRS402J-332X	MG R	3.3kΩ 1/10W J *	
R1551	NRS402J-100X	MG R	10Ω 1/10W J *	
R1552	NRS402J-124X	MG R	120kΩ 1/10W J *	
R1553	NRS402J-683X	MG R	68kΩ 1/10W J *	
R1554	NRS402J-562X	MG R	5.6kΩ 1/10W J *	
R1555	NRS402J-333X	MG R	33kΩ 1/10W J *	
R1556	NRS402J-472X	MG R	4.7kΩ 1/10W J *	
R1557	NRS402J-562X	MG R	5.6kΩ 1/10W J *	
R1558	NRS402J-104X	MG R	100kΩ 1/10W J *	
R1559	NRS402J-154X	MG R	150kΩ 1/10W J *	
R1560	NRS402J-100X	MG R	10Ω 1/10W J *	

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R1601	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1602	NRS402J-104X	MG R	100kΩ 1/10W J *	
R1610	NRS402J-471X	MG R	470Ω 1/10W J *	
R1611	NRS402J-0R0X	MG R	0.0Ω 1/10W J *	
R1612	NRS402J-561X	MG R	560Ω 1/10W J *	
R1613-14	NRS402J-123X	MG R	12kΩ 1/10W J *	
R1615	NRS402J-681X	MG R	680Ω 1/10W J *	
R1616	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1617-18	NRS402J-682X	MG R	6.8kΩ 1/10W J *	
R1619-20	NRS402J-223X	MG R	22kΩ 1/10W J *	
R1659-60	QR01G1-2R2X	C R	2.2Ω 1/4W J *	
R1661	NRS402J-561X	MG R	560Ω 1/10W J *	
R1663-64	NRS402J-223X	MG R	22kΩ 1/10W J *	
R1665	NRS402J-104X	MG R	100kΩ 1/10W J *	
R1666	NRS402J-682X	MG R	6.8kΩ 1/10W J *	
R1667	NRS402J-104X	MG R	100kΩ 1/10W J *	
R1668	NRS402J-0R0X	MG R	0.0Ω 1/10W J *	
R1669	NRS402J-473X	MG R	47kΩ 1/10W J *	
R1670	NRS402J-0R0X	MG R	0.0Ω 1/10W J *	
R1671	NRS402J-273X	MG R	27kΩ 1/10W J *	
R1672	NRS402J-122X	MG R	1.2kΩ 1/10W J *	
R1673	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1674	NRS402J-563X	MG R	56kΩ 1/10W J *	
R1675	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1676	NRS402J-273X	MG R	27kΩ 1/10W J *	
R1677	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1678	NRS402J-563X	MG R	56kΩ 1/10W J *	
R1679	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1680	NRS402J-273X	MG R	27kΩ 1/10W J *	
R1682	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1683	NRS402J-562X	MG R	5.6kΩ 1/10W J *	
R1684	NRS402J-473X	MG R	47kΩ 1/10W J *	
R1689-90	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1691-92	NRS402J-123X	MG R	12kΩ 1/10W J *	
R1693-94	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1700	NRS402J-0R0X	MG R	0.0Ω 1/10W J *	
R1701	NRS402J-104X	MG R	100kΩ 1/10W J *	
R1702	NRS402J-233X	MG R	82kΩ 1/10W J *	
R1703-06	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1707	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1708	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1709	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1710	NRS402J-821X	MG R	820Ω 1/10W J *	
R1711	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1713-14	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1716	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1718	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1719	NRS402J-101X	MG R	100Ω 1/10W J *	
R1720	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1721-23	NRS402J-472X	MG R	4.7kΩ 1/10W J *	
R1724-26	NRS402J-821X	MG R	820Ω 1/10W J *	
R1727	NRS402J-153X	MG R	15kΩ 1/10W J *	
R1728	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1729	NRS402J-683X	MG R	68kΩ 1/10W J *	
R1730	NRS402J-223X	MG R	22kΩ 1/10W J *	
R1731	NRS402J-562X	MG R	5.6kΩ 1/10W J *	
R1732	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1733	NRS402J-222X	MG R	2.2kΩ 1/10W J *	
R1734	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1735-36	NRS402J-682X	MG R	6.8kΩ 1/10W J *	
R1738	NRS402J-183X	MG R	18kΩ 1/10W J *	
R1739	NRS402J-331X	MG R	330Ω 1/10W J *	
R1740-42	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1743	NRS402J-222X	MG R	2.2kΩ 1/10W J *	
R1744-46	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1747	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1748	NRS402J-103X	MG R	10kΩ 1/10W J *	

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R1751-52	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1753	NRS402J-472X	MG R	4.7kΩ 1/10W J *	
R1754	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1755	NRS402J-472X	MG R	4.7kΩ 1/10W J *	
R1756-57	NRS402J-121X	MG R	10kΩ 1/10W J *	
R1758-59	NRS402J-221X	MG R	220Ω 1/10W J *	
R1760	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1761-65	NRS402J-221X	MG R	220Ω 1/10W J *	
R1766	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1767	NRS402J-104X	MG R	100kΩ 1/10W J *	
R1768	NRS402J-823X	MG R	82kΩ 1/10W J *	
R1770	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1771	NRS402J-392X	MG R	3.9kΩ 1/10W J *	
R1772-74	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1775-76	NRS402J-563X	MG R	56kΩ 1/10W J *	
R1777	NRS402J-223X	MG R	22kΩ 1/10W J *	
R1778	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1779	NRS402J-333X	MG R	33kΩ 1/10W J *	
R1780	NRS402J-104X	MG R	100kΩ 1/10W J *	
R1791	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1793	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1794	NRS402J-152X	MG R	1.5kΩ 1/10W J *	
R1795	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1796	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1797	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1820	NRS402J-332X	MG R	3.3kΩ 1/10W J *	
R1880-82	NRS402J-562X	MG R	5.6kΩ 1/10W J *	
R1883	NRS402J-473X	MG R	47kΩ 1/10W J *	
R1884-86	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1888-89	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1890	NRS402J-221X	MG R	220Ω 1/10W J *	
R1891	NRS402J-273X	MG R	27kΩ 1/10W J *	
R1892-96	NRS402J-221X	MG R	220Ω 1/10W J *	
R1897	QR02G1-2Z0	DM R	2.2Ω 2W J *	
R1901	NRS402J-101X	MG R	100Ω 1/10W J *	
R1902	NRS402J-223X	MG R	22kΩ 1/10W J *	
R1903	NRS402J-472X	MG R	4.7kΩ 1/10W J *	
R1904	NRS402J-223X	MG R	22kΩ 1/10W J *	
R1905	NRS402J-102X	MG R	1kΩ 1/10W J *	
<b>CAPACITOR</b>				
C1001	MCB21HK-104X	CHIP CAP.	0.1μF 50V K *	
C1002	QETN1CH-1072	E CAP.	100μF 50V M *	
C1003	MCB21HK-104X	CHIP CAP.	0.1μF 50V K *	
C1004	QETN1CH-1072	E CAP.	100μF 16V M *	
C1005	MCB21HK-104X	CHIP CAP.	0.1μF 50V K *	
C1006	QETN1CH-2272	E CAP.	220μF 16V M *	
C1007	MCB21HK-222X	C CAP.	2200pF 50V K *	
C1008	QETN1CH-1062	E CAP.	10μF 50V M *	
C1101-02	QETN1CH-1072	E CAP.	100μF 16V M *	
C1104	QETN1CH-4762	E CAP.	47μF 16V M *	
C1105	QENC1MH-4742	BP E CAP.	0.47μF 50V M *	
C1106	QETN1CH-1062	E CAP.	10μF 50V M *	
C1107	QETN1CH-2272	E CAP.	220μF 10V M *	
C1121-22	MCB21HK-103X	C CAP.	0.01μF 50V K *	
C1123	QETN1CH-4762	E CAP.	47μF 16V M *	
C1124-25	MCB21HK-103X	C CAP.	0.01μF 50V K *	
C1128	QETN1CH-1072	E CAP.	100μF 16V M *	
C1129	QETN1CH-4762	E CAP.	47μF 16V M *	
C1130	MCB21HK-103X	C CAP.	0.01μF 50V K *	
C1131	QETN1CH-4762	E CAP.	47μF 16V M *	
C1132	MCB21HK-103X	C CAP.	0.01μF 50V K *	
C1134	MCB21HK-103X	C CAP.	0.01μF 50V K *	
C1135	MCB21HK-181X	C CAP.	180pF 50V J *	
C1136-39	MCB21HK-103X	C CAP.	0.01μF 50V K *	
C1140	QETN1CH-4762	E CAP.	47μF 16V M *	

△ Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C1141	MCB21HK-103X	C CAP.	0.01μF 50V K	*
C1151	QETN1CH-2272	E CAP.	220μF 10V M	*
C1152	MCB21HK-103X	C CAP.	0.01μF 50V K	*
C1153	QETN1CH-1072	E CAP.	100μF 10V M	*
C1154	MCB21HJ-121X	C CAP.	120pF 50V J	*
C1155	QETN1CH-4762	E CAP.	47μF 16V M	*
C1161	QETN1CH-4762	E CAP.	47μF 16V M	*
C1163	QETN1CH-4762	E CAP.	47μF 16V M	*
C1171	MCB21HJ-221X	C CAP.	220pF 50V J	*
C1172	MCB21HJ-560X	C CAP.	56pF 50V J	*
C1173	MCB21HJ-221X	C CAP.	220pF 50V J	*
C1174	MCB21HJ-121X	C CAP.	120pF 50V J	*
C1192	QETN1CH-2272	E CAP.	220pF 16V M	*
C1193	MCB21HK-103X	C CAP.	0.01μF 50V K	*
C1201	QETN1CH-2272	E CAP.	220pF 16V M	*
C1202	MCB21HK-102X	C CAP.	1000pF 50V K	*
C1203-04	QETN1CH-1052	E CAP.	1μF 50V M	*
C1205-06	QETN1CH-1062	E CAP.	10μF 50V M	*
C1207	QETN1CH-2272	E CAP.	220pF 16V M	*
C1211	MCB21HK-102X	C CAP.	1000pF 50V K	*
C1212-13	QETN1CH-1052	E CAP.	1μF 50V M	*
C1214-15	QETN1CH-1062	E CAP.	10μF 50V M	*
C1216-17	QETN1CH-1052	E CAP.	1μF 50V M	*
C1218-19	QETN1CH-4762	E CAP.	47μF 16V M	*
C1220	QETN1CH-1052	E CAP.	1μF 50V M	*
C1221-22	QETN1CH-1062	E CAP.	100pF 16V M	*
C1223-24	QETN1CH-1052	E CAP.	1μF 50V M	*
C1231-33	QETN1CH-4762	E CAP.	47μF 16V M	*
C1234	MCB21HK-102X	C CAP.	1000pF 50V K	*
C1301	QETN1CH-2272	E CAP.	220pF 16V M	*
C1302	MCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1303	QETN1CH-4762	E CAP.	47μF 16V M	*
C1304	QETN1CH-4762	BP E CAP.	47μF 16V M	*
C1305	QETN1CH-2262	E CAP.	22pF 50V K	*
C1306	MCB21HK-223X	C CAP.	0.022μF 50V K	*
C1307-08	QETN1CH-1052	BP E CAP.	1μF 50V M	*
C1309	MCB21HJ-390X	C CAP.	39pF 50V J	*
C1311-13	MCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1314	MCB21HK-222X	C CAP.	2200pF 50V K	*
C1315	MCB21CK-474X	C CAP.	0.47μF 16V K	*
C1316	MCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1317	MCB21EK-154X	C CAP.	0.15μF 25V K	*
C1318	MCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1319	MCB21HK-332X	C CAP.	3300pF 50V K	*
C1320	MCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1321-22	MCB21HJ-150X	C CAP.	15pF 50V J	*
C1323	MCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1325-26	MCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1327	QETN1CH-2272	E CAP.	220pF 16V M	*
C1328-32	MCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1341	QETN1CH-1052	BP E CAP.	1μF 50V M	*
C1342-44	MCB21HJ-220X	C CAP.	22pF 50V J	*
C1345	MCB21HJ-121X	C CAP.	120pF 50V J	*
C1362	MCB21HJ-330X	C CAP.	33pF 50V J	*
C1363-65	QETN1CH-1062	E CAP.	10μF 50V M	*
C1367-88	QETN1CH-4762	E CAP.	47μF 16V M	*
C1389-90	QETN1CH-2282	E CAP.	2200pF 6.3V M	*
C1392	MCB21HJ-680X	C CAP.	68pF 50V J	*
C1396-98	MCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1403	QFLC2A-1042	M CAP.	0.1μF 100V J	*
C1404	MCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1405	MCB21HJ-820X	C CAP.	82pF 50V J	*
C1406	QETM1VH-108	E CAP.	1000pF 35V M	*
C1408	QETM1VH-3372	E CAP.	330pF 35V M	*
C1409-10	QFV71HJ-4742	MF CAP.	0.47μF 50V J	*
C1412	QFLC2A-1042	M CAP.	0.1μF 100V J	*
C1417-18	QETN1CH-1082	E CAP.	1000pF 16V M	*

Symbol No.	Part No.	Part Name	Description	Local
<b>CAPACITOR</b>				
C1419	NCB21HK-682X	C CAP.	6800pF 50V K	*
C1461	QETN1HM-226Z	E CAP.	22μF 50V M	*
C1551-52	NCB21HK-224X	C CAP.	0.22μF 16V K	*
C1553	QETN1EM-476Z	E CAP.	47μF 25V M	*
C1554-55	NCB21HK-224X	C CAP.	0.22μF 16V K	*
C1601-02	QDC21HJ-2R0Z	C CAP.	2.0pF 50V J	*
C1603-04	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1605-06	QETN1HM-106Z	E CAP.	10μF 50V M	*
C1607-08	NCF21EZ-104X	C CAP.	0.1μF 25V Z	*
C1609-12	QETN1HM-105Z	E CAP.	1μF 50V M	*
C1613-14	NCB21HJ-471X	C CAP.	470pF 50V J	*
C1615	NCF21EZ-104X	C CAP.	0.1μF 25V Z	*
C1616-18	QETN1HM-106Z	E CAP.	10μF 50V M	*
C1619	NCF21EZ-104X	C CAP.	0.1μF 25V Z	*
C1620	QETN1HM-106Z	E CAP.	10μF 50V M	*
C1621-24	NCB21HK-102X	C CAP.	1000pF 50V K	*
C1625-26	NCB21HJ-391X	C CAP.	390pF 50V J	*
C1627-28	NCB21HK-102X	C CAP.	1000pF 50V K	*
C1629	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1630	NCF21EZ-104X	C CAP.	0.1μF 25V Z	*
C1631	QETN1CM-107Z	E CAP.	100μF 16V M	*
C1632	NCF21EZ-104X	C CAP.	0.1μF 25V Z	*
C1643	QETN1HM-105Z	E CAP.	1μF 50V M	*
C1644-45	NCB21HJ-470X	C CAP.	47pF 50V J	*
C1646	NCB21HJ-820X	C CAP.	82pF 50V J	*
C1647	NCB21HK-472X	C CAP.	4700pF 50V K	*
C1648	NCB21HJ-180X	C CAP.	18pF 50V J	*
C1652-53	QETN1HM-105Z	E CAP.	1μF 50V M	*
C1654	QETN1HM-107Z	E CAP.	100μF 50V M	*
C1655	QETN1HM-106Z	E CAP.	10μF 50V M	*
C1656-57	NCF21EZ-224X	C CAP.	0.22μF 50V Z	*
C1658	QETN1HM-228	E CAP.	2200pF 50V M	*
C1661-62	NCF21EZ-224X	C CAP.	0.22μF 50V Z	*
C1663-64	QETN1HM-108	E CAP.	1000pF 35V M	*
C1667	QETN1CM-227Z	E CAP.	220pF 16V M	*
C1668-69	QETN1HM-105Z	E CAP.	1μF 50V M	*
C1670	QETN1HM-106Z	E CAP.	10μF 50V M	*
C1671	QETN1CM-476Z	E CAP.	47μF 16V M	*
C1672	NCB21HJ-100X	C CAP.	10pF 50V J	*
C1673	QETN1HM-105Z	E CAP.	1μF 50V M	*
C1674	NCB21HJ-100X	C CAP.	10pF 50V J	*
C1675	QETN1HM-105Z	E CAP.	1μF 50V M	*
C1679	QETN1HM-106Z	E CAP.	10μF 50V M	*
C1680-81	NCB21HJ-221X	C CAP.	220pF 50V J	*
C1682	QETN1CM-227Z	E CAP.	220pF 16V M	*
C1701	NCB21HJ-471X	C CAP.	470pF 50V J	*
C1702	NCB21HK-682X	C CAP.	6800pF 50V K	*
C1703	NCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1704	QETN1AM-107Z	E CAP.	100μF 10V M	*
C1705-06	NCB21HJ-2R0Z	C CAP.	2.0pF 50V J	*
C1707	NCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1708	NCB21HK-333X	C CAP.	0.033μF 50V K	*
C1709	NCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1710	QETN1EM-476Z	E CAP.	47μF 25V M	*
C1711	NCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1712	NCB21HK-333X	C CAP.	0.033μF 50V K	*
C1713	NCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1714	QETN1HM-474Z	E CAP.	0.47μF 50V M	*
C1715	QETN1CM-476Z	E CAP.	47μF 16V M	*
C1717	QETN1HM-106Z	E CAP.	10μF 50V M	*
C1718	NCB21HJ-471X	C CAP.	470pF 50V J	*
C1719	NCF21CZ-105X	C CAP.	1μF 16V Z	*
C1720	NCB21HK-102X	C CAP.	1000pF 50V K	*
C1757	NCF21HJ-471X	C CAP.	470pF 50V J	*
C1758	QETN1AM-227Z	E CAP.	220pF 10V M	*
C1759	NCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1760-61	NCB21HJ-150X	C CAP.	15pF 50V J	*

Symbol No.	Part No.	Part Name	Description	Local
<b>CAPACITOR</b>				
C1762	NCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1763	QETN1CM-476Z	E CAP.	47μF 16V M	*
C1764	NCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1766-68	NCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1774	NCB21HJ-151X	C CAP.	150pF 50V J	*
C1780	NCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C1781	NCB21HJ-101X	C CAP.	100pF 50V J	*
C1782	NCB21HK-102X	C CAP.	1000pF 50V K	*
C1783	NCB21HJ-151X	C CAP.	150pF 50V J	*
C1784	QETN1CM-227Z	E CAP.	220pF 16V M	*
C1901	QETN1CM-107Z	E CAP.	100μF 16V M	*
C1902	QETN1HM-106Z	E CAP.	10μF 50V M	*
<b>TRANSFORMER</b>				
T1101	CE42697-001	LOWPASS FILTER		*
T1111	CE42697-001	LOWPASS FILTER		*
T1121	CE42697-001	LOWPASS FILTER		*
<b>COIL</b>				
L1001-02	QOL01BK-8R2Z	COIL	8.2μH	*
L1003	QOL01BK-221Z	COIL	220μH	*
L1004	QOL01BK-5R6Z	COIL	5.6μH	*
L1101	QRM143J-0R0X	C R	0.0Ω 1/4W J	*
L1102-05	QOL03BJ-220Z	COIL	22μH	*
L1111	QOL03BJ-220Z	COIL	22μH	*
L1121	QOL03BJ-330Z	COIL	33μH	*
L1301	QOL01BK-390Z	COIL	39μH	*
L1302	NQLO24J-5R6X	COIL	5.6μH	*
L1601-02	QRM143J-0R0X	C R	0.0Ω 1/4W J	*
L1604	QOL01BJ-100Z	COIL	10μH	*
L1605	QOL01BJ-220Z	COIL	22μH	*
L1701	QOL01BK-407Z	COIL	4.7μH	*
L1702	QOL01BK-5R6Z	COIL	5.6μH	*
L1752	QRM143J-0R0X	C R	0.0Ω 1/4W J	*
L1753	QOL01BK-407Z	COIL	4.7μH	*
<b>DIODE</b>				
D1201-11	MA3130/HV-X	ZENER DIODE		*
D1214-15	MA3130/HV-X	ZENER DIODE		*
D1402	BYD330-73	SI DIODE		*
D1403-04	MA3330/LV-X	ZENER DIODE		*
D1461	MA111-X	SI DIODE		*
D1462	MA3320/HV-X	ZENER DIODE		*
D1502	MA111-X	SI DIODE		*
D1504	MA111-X	SI DIODE		*
D1653-54	MA3330/LV-X	ZENER DIODE		*
D1658	MA153A-X	SI DIODE		*
D1660	MA111-X	SI DIODE		*
D1661	MA153A-X	SI DIODE		*
D1664-65	MA111-X	SI DIODE		*
D1666	MA306Z/HV-X	ZENER DIODE		*
D1667-68	MA3150/HV-X	ZENER DIODE		*
D1701-02	MA111-X	SI DIODE		*
D1704	1S5244-T2	SI DIODE		*
D1708	MA111-X	SI DIODE		*
D1709	MA306B/HV-X	ZENER DIODE		*
D1710	MA111-X	SI DIODE		*
D1712	MA111-X	SI DIODE		*
D1751-53	MA111-X	SI DIODE		*
D1754	MA306Z/HV-X	ZENER DIODE		*
D1771-74	MA3056/HV-X	ZENER DIODE		*
D1901	MA3130/HV-X	ZENER DIODE		*

Symbol No.	Part No.	Part Name	Description	Local
<b>TRANSISTOR</b>				
Q1101-04	2SC2412K/QR/-X	SI TRANSISTOR		*
Q1111	2SC2412K/QR/-X	SI TRANSISTOR		*
Q1112	2SA1037AK/QR/-X	SI TRANSISTOR		*
Q1113-14	2SC2412K/QR/-X	SI TRANSISTOR		*
Q1121	2SC2412K/QR/-X	SI TRANSISTOR		*
Q1122	2SA1037AK/QR/-X	SI TRANSISTOR		*
Q1123-24	2SC2412K/QR/-X	SI TRANSISTOR		*
Q1131-32	2SC2412K/QR/-X	SI TRANSISTOR		*
Q1201-02	2SC2712/VG/-X	SI TRANSISTOR		*
Q1203	2SC1815/VG/-T	SI TRANSISTOR		*
Q1204-05	2SC2712/VG/-X	SI TRANSISTOR		*
Q1206-07	DTC323TK-X	DIGI. TRANSISTOR		*
Q1208	2SA1162/VG/-X	SI TRANSISTOR		*
Q1209	2SA1015/VG/-T	SI TRANSISTOR		*
Q1211	2SA1162/VG/-X	SI TRANSISTOR		*
Q1213-14	2SC2712/VG/-X	SI TRANSISTOR		*
Q1215-16	DTC323TK-X	DIGI. TRANSISTOR		*
Q1217	2SA1162/VG/-X	SI TRANSISTOR		*
Q1220-21	2SC2712/VG/-X	SI TRANSISTOR		*
Q1301	2SA1162/VG/-X	SI TRANSISTOR		*
Q1303-04	2SA1162/VG/-X	SI TRANSISTOR		*
Q1305	2SC2712/VG/-X	SI TRANSISTOR		*
Q1345	DTIC124EKA-X	DIGI. TRANSISTOR		*
Q1346	2SC2712/VG/-X	SI TRANSISTOR		*
Q1351	DTIC124EKA-X	DIGI. TRANSISTOR		*
Q1381-83	2SC2712/VG/-X	SI TRANSISTOR		*
Q1461-62	2SC2712/VG/-X	SI TRANSISTOR		*
Q1601	DTIC323TK-X	DIGI. TRANSISTOR		*
Q1602	2SA1162/VG/-X	SI TRANSISTOR		*
Q1603	2SC2712/VG/-X	SI TRANSISTOR		*
Q1655-56	DTIC323TK-X	DIGI. TRANSISTOR		*
Q1657	2SC2712/VG/-X	SI TRANSISTOR		*
Q1658-60	2SA1162/VG/-X	SI TRANSISTOR		*
Q1701-08	2SC2712/VG/-X	SI TRANSISTOR		*
Q1709	2SA1162/VG/-X	SI TRANSISTOR		*
Q1752	2SA1162/VG/-X	SI TRANSISTOR		*
Q1753	DTIC124EKA-X	DIGI. TRANSISTOR		*
Q1901	2SA1162/VG/-X	SI TRANSISTOR		*
Q1902	2SC2712/VG/-X	SI TRANSISTOR		*
<b>IC</b>				
IC1101	TC9090AM	I.C. (DIGI-MOS)		*
IC1301	CXA1545AS	I.C. (MONO-ANA)		*
IC1303	TD9143/M3	I.C. (MONO-ANA)		*
IC1304	TD44665	I.C. (MONO-ANA)		*
IC1305	LA7016	I.C. (MONO-ANA)		*
IC1401	LA7841	I.C. (MONO-ANA)		*
IC1551	L46515	I.C. (MONO-ANA)		*
IC1601	MSF34100-PP-B4	I.C. (DIGI-OTHER)		*
IC1651	TAR246H	I.C. (HYBRID)		*
IC1652	BA4558F-X	I.C. (MONO-ANA)		*
IC1701	M37200M-1015P	I C		*
IC1702	L78LROSE-NA	I.C. (MONO-ANA)		*
IC1703	AT24C1632WZ4EP	I.C.	(SERVICE)	*
IC1754	S0A52755	I.C. (MICRO-PROC)		*
IC1755	MSR5144000-60Z5	I.C. (D-RAM)		*
<b>OTHERS</b>				
CN1002	CEMS009-064	I.C. SOCKET		*
CN1008	CHC108N-25T-AE	FFC CONNECTOR		*
K1001	CHA401B-35P-J	HOF PLUG		*
K1009	QRW143J-0R0X	C R	0.0Ω 1/4W J	*
K1101	QRW143J-0R0X	C R	0.0Ω 1/4W J	*
K1101	CE41433-001Z	BEADS CORE		*
K1401	CE41433-001Z	BEADS CORE		*
K1701	CE41433-001Z	BEADS CORE		*

△ Symbol No.	Part No.	Part Name	Description	Local
OTHERS				
LC1101	CE42142-222Z	EMI FILTER		*
LC1601	CE42142-103Z	EMI FILTER		*
TU1001	CEK481-A03	TUNER		*
W1001-02	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
X1311	CE40749-001Z	CRYSTAL		*
X1312	CE40668-001Z	CRYSTAL		*
X1601	CE42546-001Z	CRYSTAL		*
X1701	C5T8.00MTW	CER. RESONATOR		*
X1752	QAK0351-001Z	CRYSTAL		*
Y1301-06	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
Y1312-13	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
Y1314	NRS402J-682X	MG R	6.8kΩ 1/10W J	*
Y1315-17	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
Y1324-26	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
Y1328	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
Y1401	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
Y1502-05	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
Y1651-52	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
Y1654	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
Y1701-03	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
Y1750-53	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
POWER / DEF PW BOARD ASS'Y (SMD-2002A-U2)				
△ Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R2451	QRE141J-272Y	C R	2.7kΩ 1/4W J	*
R2455	QRE141J-102Y	C R	1kΩ 1/4W J	*
R2456	QRE141J-473Y	C R	47kΩ 1/4W J	*
R2457	QRE141J-103Y	C R	10kΩ 1/4W J	*
R2458	QRE141J-273Y	C R	27kΩ 1/4W J	*
R2459	QRE141J-272Y	C R	2.7kΩ 1/4W J	*
R2461	QRE141J-102Y	C R	1kΩ 1/4W J	*
R2463	ORG029J-820	OM R	82 Ω 2W J	*
R2465	QRE141J-103Y	C R	10kΩ 1/4W J	*
R2501	QRE141J-471Y	C R	470Ω 1/4W J	*
R2502	QRE141J-123Y	C R	12kΩ 1/4W J	*
R2503	QRE121J-152Y	C R	1.5kΩ 1/2W J	*
R2504-05	ORG039J-272	OM R	2.7kΩ 3W J	*
R2506	QRE121J-5R6Y	C R	5.6Ω 1/2W J	*
R2507	QRE141J-152Y	C R	1.5kΩ 1/4W J	*
R2509	QRE141J-563Y	C R	56kΩ 1/4W J	*
R2510	QRE141J-333Y	C R	33kΩ 1/4W J	*
R2511	QRE141J-102Y	C R	1kΩ 1/4W J	*
R2522	QRE121J-471Y	C R	470Ω 1/2W J	*
△ R2551	QR2907J-4R7	F R	4.7Ω 1/4W J	*
△ R2552	QR2502J-1R0	FUSI. RESISTOR	1 Ω 1W J	*
△ R2553	QR2502J-1R0	FUSI. RESISTOR	1 Ω 1W J	*
R2554	QRE141J-182Y	C R	1.8kΩ 1/4W J	*
R2555	QRE141J-822Y	C R	8.2kΩ 1/4W J	*
R2557	QRE121J-272Y	C R	2.7kΩ 1/2W J	*
R2561	QRZ0056-103Z	COMP. R	10kΩ 1/2W K	*
R2581	QRZ154K-4R7	UNF R	4.7Ω 15W K	*
R2582	QRE141J-681Y	C R	680Ω 1/4W J	*
R2583	QRE121J-682Y	C R	6.8kΩ 1/2W J	*
R2584	QRE141J-183Y	C R	18kΩ 1/4W J	*
R2585	QRE141J-222Y	C R	2.2kΩ 1/4W J	*

Δ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R2586	QRA14CF-7501Y	MF R	7.5kΩ 1/4W F	*
R2587	QRA14CF-2201Y	MF R	2.2kΩ 1/4W F	*
R2588	QRE141J-103Y	C R	10kΩ 1/4W J	*
R2901	QRF104K-3R9	UMF R	3.9Ω 10W K	*
R2902	QRE121J-331Y	C R	330Ω 1/2W J	*
R2903-04	QRE121J-474Y	C R	470kΩ 1/2W J	*
R2905	QRL039J-823	OM R	82kΩ 3W J	*
R2906	QRG039J-683	OM R	68kΩ 3W J	*
Δ R2907	QRZ9017-2R2	FUS1 RESISTOR	2.2 Ω 1/4W J	*
R2908	QRE121J-152Y	C R	1.5kΩ 1/2W J	*
R2909	QRW029J-839	MF R	0.39Ω 2W J	*
R2910	QRW059J-R22	MF R	0.22Ω 5W J	*
R2911	QRE121J-681Y	C R	680Ω 1/2W J	*
R2912	QRE121J-332Y	C R	3.3kΩ 1/2W J	*
R2913	QRL039J-823	OM R	82kΩ 3W J	*
R2923	QRE121J-102Y	C R	1kΩ 1/2W J	*
R2951	QRW074J-102	UMF R	1kΩ 7W J	*
R2952	QRG029J-103	DM R	10kΩ 2W J	*
R2953	QRG029J-183	DM R	18kΩ 2W J	*
R2954	QRE141J-330Y	C R	33Ω 1/4W J	*
R2955	QRE141J-681Y	C R	680Ω 1/4W J	*
R2956	QRX029J-R47	MF R	0.47Ω 2W J	*
R2957	QRG029J-100	DM R	10 Ω 2W J	*
R2960	QRE141J-153Y	C R	15kΩ 1/4W J	*
R2961	QRE141J-182Y	C R	1.8kΩ 1/4W J	*
R2962	QRE141J-153Y	C R	15kΩ 1/4W J	*
R2963	QRE141J-682Y	C R	6.8kΩ 1/4W J	*
R2968	QRE141J-103Y	C R	10kΩ 1/4W J	*
R2969	QRE141J-682Y	C R	6.8kΩ 1/4W J	*
R2970	QRE141J-822Y	C R	8.2kΩ 1/4W J	*
R2971	QRE141J-682Y	C R	6.8kΩ 1/4W J	*
R2983	QRE141J-122Y	C R	1.2kΩ 1/4W J	*
R2984	QRE141J-104Y	C R	100kΩ 1/4W J	*
R2985-86	QRE141J-103Y	C R	10kΩ 1/4W J	*
R2987	QRE121J-680Y	C R	68Ω 1/2W J	*
Δ R2991	QRZ0057-825	C R	8.2MΩ 1W J	*
<b>CAPACITOR</b>				
C2451	QC331HJ-4702	C CAP.	47pF 50V J	*
C2452	QFV71HJ-1042	MF CAP.	0.1μF 50V J	*
C2453	QETN1EM-4762	E CAP.	47μF 25V M	*
C2455	QFLC1HJ-1022	M CAP.	1000pF 50V J	*
C2456	QFNT720J-1222	M CAP.	1200pF 200V J	*
C2457	QFNT720J-1522	M CAP.	1500pF 200V J	*
C2458	QEZ047J-2262	E CAP.	4.7μF 50V M	*
C2461	QFLC1HJ-1822	M CAP.	1800pF 50V J	*
C2501	QCB32HK-3312	C CAP.	330pF 500V K	*
C2502	QFNT720K-103	M CAP.	0.01μF 200V K	*
C2503	QFV71HJ-2242	MF CAP.	0.22μF 50V J	*
Δ C2521	QFZ0112Z-112	MPP CAP.	1100pF1.8kV±5%	*
Δ C2522	QFZ0117Z-1222	MPP CAP.	0.0122μF1.4kV±2.5%	*
C2523	QFNT720K-393	M CAP.	0.039μF 200V K	*
Δ C2524	QFP32GJ-273	PP CAP.	0.027μF 400V J	*
C2525	QFZ0194-125	MPP CAP.	1.2μF 250V J	*
C2526	QFZ0194-534	MPP CAP.	0.53μF 250V J	*
C2529	QCB32HK-5612	C CAP.	560pF 500V K	*
C2532	QETN2CM-227	E CAP.	220μF 160V M	*
C2551	QCB32HK-1522	C CAP.	1500pF 500V K	*
C2552	QETN1CM-1082	E CAP.	1000μF 16V M	*
C2553	QCB32HK-1522	C CAP.	1500pF 500V K	*
C2554	QETN1CM-1082	E CAP.	1000μF 16V M	*
C2555	QENC1HM-3352	BP E CAP.	3.3μF 50V M	*
C2556	QCB32HK-1022	C CAP.	1000pF 500V K	*
C2557	QETN2EM-1062	E CAP.	10μF 250V M	*
C2561	QCZ0122-681	C CAP.	680pF 2000V K	*
C2581	QETN1CM-1072	E CAP.	100μF 16V M	*

Δ Symbol No.	Part No.	Part Name	Description	Local
<b>CAPACITOR</b>				
C2582	QETN1EM-4762	E CAP.	47μF 25V M	*
C2583	QETN1AM-1062	E CAP.	10μF 100V M	*
C2584	QETN1AM-2272	E CAP.	220μF 10V M	*
C2585	QFZ0194-534	MPP CAP.	0.53μF 250V J	*
Δ C2901	QFZ9040-473	MF CAP.	0.047μFAC275V M	*
Δ C2902	QCZ9054-472	C CAP.	4700pFAC250V Z	*
Δ C2903	QCZ9054-472	C CAP.	4700pFAC250V Z	*
Δ C2904	QCZ9054-472	C CAP.	4700pFAC250V Z	*
C2905	QEZ0199-227	E CAP.	220μF 400V M	*
C2906	QCB32HK-103	C CAP.	0.01μF 500V K	*
C2907	QCZ0122-391	C CAP.	390pF 2kV K	*
C2908	QETN1HM-4762	E CAP.	47μF 50V M	*
C2909	QCB31HK-1822	C CAP.	1800pF 50V K	*
C2910	QCZ0122-561	C CAP.	560pF 2000V K	*
C2912	QCB31HK-5612	C CAP.	560pF 50V K	*
C2921	QETN1EM-2272	E CAP.	220μF 25V M	*
C2922-23	QETN1HM-1062	E CAP.	10μF 50V M	*
C2951	QEZ0203-227	E CAP.	220μF 160V M	*
C2952	QEHQ1CM-228	E CAP.	2200μF 16V M	*
C2953	QEHQ1CM-228	E CAP.	2200μF 16V M	*
C2954	QEHQ1CM-228	E CAP.	2200μF 16V M	*
C2955	QEHQ1CM-4772	E CAP.	470μF 16V M	*
C2956	QEHQ1VM-228	E CAP.	2200μF 35V M	*
C2957-58	QETN1EM-338	E CAP.	3300μF 25V M	*
C2959-60	QCB32HK-1022	C CAP.	1000pF 500V K	*
C2967	QEHQ1CM-228	E CAP.	2200μF 16V M	*
C2968	QCZ0120-1042	C CAP.	0.1μF 25V Z	*
C2970	QETN1CM-2272	E CAP.	220μF 16V M	*
C2972-73	QEHQ1AM-4772	E CAP.	470μF 10V M	*
C2974-75	QEZ0256-128	E CAP.	1200μF 10V M	*
C2976	QETN1AM-2272	E CAP.	220μF 10V M	*
C2977	QFV71HJ-6842	MF CAP.	0.68μF 50V J	*
C2978	QCZ0122-471	C CAP.	470pF 2000V K	*
Δ C2991	QEZ9079-332	C CAP.	3300pFAC250V K	*
Δ C2992	QEZ9079-471	C CAP.	470pFAC250V K	*
<b>TRANSFORMER</b>				
T2501	QQR0882-001	HOR. DEF. TRANSF.		*
T2521	QQR0706-001	PINC. TRANSF.		*
Δ T2551	QQR0054-002-12	FBT	(SERVICE)	*
T2561	CE42692-001J1	DAF TRANSF.		*
Δ T2901	CE5129-001J4	SW TRANSF.		*
Δ T2921	QQT0147-001	POWER TRANSF.		*
<b>COIL</b>				
L2451	QQL43AJ-332	CHOKE COIL		*
L2452	QQLZ020-801	CHOKE COIL		*
L2522	QQR0961-002	LINEARITY COIL		*
L2551	QQLZ018-560	HEATER CHOKE		*
L2901-02	QQL401K-1002	CHOKE COIL		*
L2951	QQLZ018-460	HEATER CHOKE		*
L2952-54	QQLZ56K-2202	COIL	22μH	*
L2955	QQR0518-001	CHOKE COIL		*
L2956	QQLZ018-460	HEATER CHOKE		*
L2957	QQLZ56K-2202	COIL	22μH	*
<b>DIODE</b>				
D2454	BYD330-T3	SI DIODE		*
D2501	1S581-T5	SI DIODE		*
D2502	1S5133-T2	SI DIODE		*
D2503	MTJ158-T2	ZENER DIODE		*
D2521	W16A-C1	SI DIODE		*
D2522	FMV-3FU-F1	SI DIODE		*
<b>DIODE</b>				
D2551-52	BYW95B-20	SI DIODE		*
D2553	BYD33G-T3	SI DIODE		*
D2554	MTJ14-7A-T2	ZENER DIODE		*
D2555-56	BYD33G-T3	SI DIODE		*
D2581	MTJ158-T2	ZENER DIODE		*
D2582	MTJ17-58-T2	ZENER DIODE		*
D2583	MTJ17-58-T2	ZENER DIODE		*
D2584	BYD33G-T3	SI DIODE		*
Δ D2901	D3S860	BRIDGE DIODE		*
D2902	BYD33M-T3	SI DIODE		*
Δ D2903	BYD330-T3	SI DIODE		*
D2904	BYD330-T3	SI DIODE		*
D2905	1S5133-T2	SI DIODE		*
D2907	MTJ158-T2	ZENER DIODE		*
D2921-24	1M4003-T2	SI DIODE		*
D2925	MTJ108-T2	ZENER DIODE		*
D2951	RU48-F1	SI DIODE		*
D2953	FMX-G125	SI DIODE		*
D2954	BYW95B-20	SI DIODE		*
D2955	SF6L20	SI DIODE		*
D2956-57	FMX-G125	SI DIODE		*
D2958	BYD33M-T3	SI DIODE		*
D2959	RK44-LF74	SI DIODE		*
D2960	MTJ338-T2	ZENER DIODE		*
D2961-62	1S5133-T2	SI DIODE		*
D2964-66	1S5133-T2	SI DIODE		*
D2981-82	1S5133-T2	SI DIODE		*
<b>TRANSISTOR</b>				
Q2452	2SK2459H-F54	F.E.T.		*
Q2501	BSN274	F.E.T.		*
Q2502	2SC1815/YG/-T	SI TRANSISTOR		*
Δ Q2521	2SC555-LT	SI TRANSISTOR	H.OUT	*
Q2581	2SA949/Y/Z1-T	SI TRANSISTOR		*
Q2582	OTC144ESA-T	DIGI. TRANSISTOR		*
Q2583	2SC1815/YG/-T	SI TRANSISTOR		*
Q2921	2SC2655/Y/-T	SI TRANSISTOR		*
Q2981-82	2SC1815/YG/-T	SI TRANSISTOR		*
<b>IC</b>				
IC2451	BA10393	IC		*
IC2901	STR-F66688	I.C.		*
IC2951	SE140N	I.C. (HYBRID)		*
IC2952	BA127	I.C. (MONO-ANA)		*
IC2953	ST-8050S	I.C. (HYBRID)		*
IC2954	BA0337	I.C. (MONO-ANA)		*
IC2955	UPC7409AHF	I.C. (MONO-ANA)		*
IC2956	BA08T	I.C.		*
<b>OTHERS</b>				
Δ CP2953	ICP-W75-Y	I.C. PROTECT		*
Δ CP2954	QMFZ034-4R0Z-J1	FUSE	4A	*
Δ CP2955	QMFZ034-4R0Z-J1	FUSE	4A	*
K2521	CE41832-001	LEAD CORE		*
K2522-25	CE41832-001	LEAD CORE		*
K2901-02	CE42050-001Z	CORE		*
K2951	QQR0679-001	FERRITE BEADS		*
K2952	CE41433-001Z	BEADS CORE		*
K2953	CE41832-001	LEAD CORE		*
Δ PC2901	TL7272F-(4-GR)	I.C. (PH. COUPLER)		*
Δ RY2981	OSK006-001	RELAY		*
Δ TH2901	CEK002-003	W.P. THERMISTOR		*
Δ VA2561	ERZ210V112C1	VARISTOR		*

## CRT SOCKET PW BOARD ASS'Y (SMD-3003A-U2)

Δ Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R3101	QRE141J-272Y	C R	2.7kΩ 1/4W J	*
R3102	QRE141J-153Y	C R	15kΩ 1/4W J	*
R3103	QRE141J-152Y	C R	1.5kΩ 1/4W J	*
R3104	QRE141J-680Y	C R	680Ω 1/4W J	*
R3105	QRE141J-221Y	C R	220Ω 1/4W J	*
Δ R3106	QRJ146J-100X	C R	100Ω 1/4W J	*
R3107-08	QRE141J-470Y	C R	470Ω 1/4W J	*
Δ R3109	QRZ9021-561	FUS1 RESISTOR	560 Ω 1W J	*
R3110	QRE141J-122Y	C R	1.2kΩ 1/4W J	*
R3111	QRE141J-390Y	C R	390Ω 1/4W J	*
R3112	QRE141J-287Y	C R	2.7Ω 1/4W J	*
R3113-14	QRE141J-563Y	C R	56kΩ 1/4W J	*
R3115	QRE141J-122Y	C R	1.2kΩ 1/4W J	*
R3116	QRE141J-287Y	C R	2.7Ω 1/4W J	*
R3117	QRE141J-390Y	C R	390Ω 1/4W J	*
R3118	QRE141J-121Y	C R	120Ω 1/4W J	*
R3119	QRL029J-391	OM R	390Ω 2W J	*
R3130	QRE141J-101Y	C R	10kΩ 1/4W J	*
R3204-06	QRE141J-152Y	C R	1.5kΩ 1/4W J	*
R3207	QRE141J-562Y	C R	5.6kΩ 1/4W J	*
R3208	QRE141J-123Y	C R	12kΩ 1/4W J	*
R3211	QRE141J-334Y	C R	330kΩ 1/4W J	*
R3223-25	QRE141J-182Y	C R	1.8kΩ 1/4W J	*
R3227	QRE141J-272Y	C R	2.7kΩ 1/4W J	*
R3228	QRE141J-822Y	C R	8.2kΩ 1/4W J	*
R3229-31	QMG016J-823	OM R	82kΩ 1W J	*
R3232-34	QRE141J-332Y	C R	3.3kΩ 1/4W J	*
R3235-37	QMC121K-1522	COMP. R	1.5kΩ 1/2W K	*
R3239	QRZ0107-4742	C R	0.47μF 1/2W K	*
R3240	QRZ0107-102Z	C R	15 Ω 1/2W K	*
R3241	QRZ0107-105Z	C R	15 Ω 1/2W K	*
R3301-02	QRE121J-474Y	C R	47kΩ 1/2W J	*
R3303-04	QRE141J-223Y	C R	22kΩ 1/4W J	*
R3305	QRE141J-562Y	C R	5.6kΩ 1/4W J	*
R3306	QRE141J-392Y	C R	3.9kΩ 1/4W J	*
R3307	QRE141J-101Y	C R	10kΩ 1/4W J	*
R3308	QRE141J-471Y	C R	470Ω 1/4W J	*
R3309	QRE141J-120Y	C R	12Ω 1/4W J	*
R3310	QRE141J-331Y	C R	330Ω 1/4W J	*
R3311-12	QRE141J-472Y	C R	4.7kΩ 1/4W J	*
R3313	QRE141J-102Y	C R	1kΩ 1/4W J	*
CAPACITOR				
C3101	QETW1HM-106Z	E CAP.	10μF 50V M	*
C3102	QETW1HM-335Z	E CAP.	3.3μF 50V M	*
C3104	QETW1CH-107Z	E CAP.	100μF 16V M	*
C3105	QCS31HJ-101Z	E CAP.	1000pF 50V J	*
C3106	QCS31HJ-181Z	E CAP.	1800pF 50V J	*
C3107	QETW2CH-106Z	E CAP.	1μF 160V M	*
C3108-09	QCB32HK-472Z	C CAP.	4700pF 500V K	*
C3110	QETW2CH-106Z	E CAP.	10μF 160V M	*
C3111-12	QETW1AM-337Z	E CAP.	330μF 10V M	*
C3113	QETW1AM-107Z	E CAP.	100μF 10V M	*
C3114	QCS32HJ-470Z	C CAP.	470pF 500V J	*
C3115	QCS31HJ-580Z	C CAP.	5.0pF 50V J	*
C3118	QENC1HM-106Z	BP E CAP.	10μF 50V M	*
C3201-03	QCS31HJ-480Z	C CAP.	8.0pF 50V J	*
C3204	QCZ0120-104Z	C CAP.	1 Ω 25V Z	*
C3205	QCZ0120-104Z	C CAP.	1 Ω 25V Z	*
C3206	QCZ0120-104Z	C CAP.	1 Ω 25V Z	*
C3207-09	QETW1HE-476Z	E CAP.	47μF 25V M	*
C3210-12	QFK62EK-104Z	MM CAP.	0.1μF 250V K	*
C3213-15	QCS31HJ-181Z	C CAP.	1800pF 50V J	*
C3216	QETW1CH-107Z	E CAP.	100μF 16V M	*



△ Symbol No.	Part No.	Part Name	Description	Local
<b>CAPACITOR</b>				
C3218	QETN2EM-336	E CAP.	33μF 250V M	*
C3219	QF20097-223	MF CAP.	0.022μF 1250V K	*
C3221	QETN2EM-1062	E CAP.	10μF 250V M	*
C3301	QETN1CM-1072	E CAP.	100μF 16V M	*
C3302	QFLC1MJ-1032	M CAP.	0.01μF 50V J	*
<b>COIL</b>				
L3201-03	QQL01BK-4R72	COIL	4.7μH	*
L3301	QQL26AJ-1022	COIL	1000μH	*
<b>DIODE</b>				
D3101-02	RH15-T3	SI DIODE		*
D3151	1S5133-T2	SI DIODE		*
D3204-06	EU01N-T2	SI DIODE		*
D3208-10	1SR124-400A-T2	SI DIODE		*
D3301	1S5252-T2	SI DIODE		*
D3302-03	1S5133-T2	SI DIODE		*
<b>TRANSISTOR</b>				
Q3102-03	2SC3311A/QR/-T	SI TRANSISTOR		*
Q3104	2SA1309A/QR/-T	SI TRANSISTOR		*
Q3105	2SA1837	SI TRANSISTOR		*
Q3106	2SC4793	SI TRANSISTOR		*
Q3301	2SA1015/YG/-T	SI TRANSISTOR		*
Q3302	2SC2655/Y/-T	SI TRANSISTOR		*
Q3303	2SA1015/YG/-T	SI TRANSISTOR		*
Q3304-05	2SC3311A/QR/-T	SI TRANSISTOR		*
<b>IC</b>				
IC3201-03	TD6111Q	I.C. (MONO-ANA)		*
<b>OTHERS</b>				
K3101-04	CE41492-0012	CHOKO COIL		*
K3105	CE41433-0012	BEADS CORE		*
SG3201-03	CE42447-501	ARRESTOR		*
△ SK3001	CE42670-001	C.R.T. SOCKET		*

## AUDIO PW BOARD ASS'Y (SMD-6002A-U2)

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R6101	QRN143J-2R2X	C R	2.2Ω 1/4W J	*
R6102	QRN141J-562Y	C R	5.6kΩ 1/4W J	*
R6103	QRN141J-223Y	C R	22kΩ 1/4W J	*
R6104	QRN141J-681Y	C R	680Ω 1/4W J	*
R6105-06	QRN141J-223Y	C R	22kΩ 1/4W J	*
R6107	QRN141J-183Y	C R	18kΩ 1/4W J	*
R6108	QRN143J-2R2X	C R	2.2Ω 1/4W J	*
R6109	QRN141J-562Y	C R	5.6kΩ 1/4W J	*
R6110	QRN141J-223Y	C R	22kΩ 1/4W J	*
R6111	QRN141J-681Y	C R	680Ω 1/4W J	*
R6112-13	QRN141J-223Y	C R	22kΩ 1/4W J	*
R6114	QRN141J-183Y	C R	18kΩ 1/4W J	*
R6115	QRN143J-103X	C R	10kΩ 1/4W J	*
R6116	QRN141J-273Y	C R	27kΩ 1/4W J	*
R6118-19	QRN141J-104Y	C R	100kΩ 1/4W J	*
R6122-23	QRN141J-104Y	C R	100kΩ 1/4W J	*
R6124	QRN141J-472Y	C R	4.7kΩ 1/4W J	*
R6125-26	QRN141J-223Y	C R	22kΩ 1/4W J	*
<b>CAPACITOR</b>				
C6101	QFV71HJ-684Z	MF CAP.	0.68μF 50V J	*
C6102-03	QETN1EM-228	E CAP.	2200μF 25V M	*
C6104	QETN1HM-476Z	E CAP.	47μF 50V M	*
C6105	QETN1HM-105Z	E CAP.	1μF 50V M	*
C6106	QETN1CM-107Z	E CAP.	100μF 16V M	*
C6108	QFV71HJ-684Z	MF CAP.	0.68μF 50V J	*
C6109-10	QFV71HJ-104Z	MF CAP.	0.1μF 50V J	*
C6111	QETN1HM-476Z	E CAP.	47μF 50V M	*
C6112	QETN1HM-105Z	E CAP.	1μF 50V M	*
C6113	QETN1CM-107Z	E CAP.	100μF 16V M	*
C6115-16	QFV71HJ-684Z	MF CAP.	0.68μF 50V J	*
C6125-26	QCS31HJ-181Z	C CAP.	180pF 50V J	*
C6127	QFLC1HJ-103Z	M CAP.	0.01μF 50V J	*
<b>DIODE</b>				
D6101-04	MTZJ27B-T2	ZENER DIODE		*
D6105	MTZJ5.1B-T2	ZENER DIODE		*
D6107	1S5133-T2	SI DIODE		*
D6108	MA700A-T2	SI DIODE		*
D6110-11	1S5133-T2	SI DIODE		*
<b>TRANSISTOR</b>				
Q6101	DTC144ESA-T	DIGI. TRANSISTOR		*
Q6102	2SA1015/YG/-T	SI TRANSISTOR		*
Q6104	2SA1015/YG/-T	SI TRANSISTOR		*
Q6105	DTC144ESA-T	DIGI. TRANSISTOR		*
Q6106-07	DTC323TS-T	DIGI. TRANSISTOR		*
<b>IC</b>				
IC6101-02	TD42052V	I.C. (MONO-ANA)		*
<b>OTHERS</b>				
K6001-02	CE41433-0012	BEADS CORE		*

## FRONT CONTROL PW BOARD ASS'Y (SMD-8002A-U2)

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R8001-02	QRN121J-151Y	C R	150Ω 1/2W J	*
R8003	QRN141J-222Y	C R	2.2kΩ 1/4W J	*
R8004	QRN141J-472Y	C R	4.7kΩ 1/4W J	*
R8005	QRN141J-561Y	C R	560Ω 1/4W J	*
R8007	QRN141J-103Y	C R	10kΩ 1/4W J	*
R8008	QRN141J-682Y	C R	6.8kΩ 1/4W J	*
R8009	QRN141J-105Y	C R	1MΩ 1/4W J	*
R8010	QRN141J-183Y	C R	18kΩ 1/4W J	*
R8011	QRN141J-123Y	C R	12kΩ 1/4W J	*
R8012	QRN141J-273Y	C R	27kΩ 1/4W J	*
R8013	QRN141J-332Y	C R	3.3kΩ 1/4W J	*
R8014	QRN141J-123Y	C R	12kΩ 1/4W J	*
R8020	QRN141J-562Y	C R	5.6kΩ 1/4W J	*
R8025	QRN141J-391Y	C R	390Ω 1/4W J	*
R8036-38	QRN141J-561Y	C R	560Ω 1/4W J	*
R8039	QRN141J-821Y	C R	820Ω 1/4W J	*
<b>CAPACITOR</b>				
C8001-02	QCB31HK-103Z	C CAP.	0.01μF 50V K	*
C8003	QETN1HM-106Z	E CAP.	10μF 50V M	*
C8004	QC20120-104Z	C CAP.	0.1μF 25V Z	*
C8005	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8010-11	QCB31HK-472Z	C CAP.	4700pF 50V K	*
C8019	QETN1CM-107Z	E CAP.	100μF 16V M	*
C8021	QC20120-104Z	C CAP.	0.1μF 25V Z	*
C8022	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8023	QC20120-104Z	C CAP.	0.1μF 25V Z	*
△ C8901	QF29040-474	MF CAP.	0.47μF AC275V M	*
<b>COIL</b>				
L8001	QQR0716-001Z	LEAD CORE		*
L8002-03	QQL211K-586Y	COIL	5.6μH	*
L8010-11	QQL211K-270Y	COIL	27μH	*
L8012	QQR0716-001Z	LEAD CORE		*
<b>DIODE</b>				
D8007	P1241-04	C.D.S.		*
D8008	1S5133-T2	SI DIODE		*
D8009	SLR-342MG-T16	L.E.D. (GRN)		*
D8010	SPR-39MMF	L.E.D.		*
D8011	1S5133-T2	SI DIODE		*
D8012	SLR-342DU-T16	L.E.D. (ORG)		*
D8013	SLR-342YY-T16	L.E.D. (YLG)		*
D8014	MTZJ6.8A-T2	ZENER DIODE		*
D8018	MTZJ5.1B-T2	ZENER DIODE		*
<b>TRANSISTOR</b>				
Q8001	2SA1015/YG/-T	SI TRANSISTOR		*
Q8002	DTC144ESA-T	DIGI. TRANSISTOR		*
Q8003-04	DTA144ESA-T	DIGI. TRANSISTOR		*
Q8005-07	DTC144ESA-T	DIGI. TRANSISTOR		*
<b>IC</b>				
IC8001	GP10281Q	IFR DETECT UNIT		*

△ Symbol No.	Part No.	Part Name	Description	Local
<b>OTHERS</b>				
	CEN6002-001Z	FUSE CLIP		*
	CM36548-001-E	L.E.D. HOLDER		*
	CM35521-005-H	CDS HOLDER		*
CN8002	CM3108N-25T-AE	PFC CONNECTOR		*
CN8017	CM42151-005RT	JL PLUG		*
CN8117	CM42151-005PSP	JL PLUG		*
△ F8901	QMF5102-3R15J1	FUSE	3.15A	*
J8001	QMS3007-C01	JACK		*
J8003	QMD2804-002	MINI CONNECTOR		*
J8004	CEMN011-001	JACK		*
J8005	CEMN011-002	JACK		*
J8006	CEMN011-003	JACK		*
△ LF8901	CELFO12-001J7	LINE FILTER		*
△ LF8902	CELFO12-001J7	LINE FILTER		*
S8001	CESPO01-001	PUSH SWITCH	CH DOWN/UP	*
S8002	CESPO01-001	PUSH SWITCH	MENU	*
△ S8901	QSM0750-001	PUSH SWITCH	MAIN POWER	*

## DOLBY PW BOARD ASS'Y (SMD0D001A-U2)

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R0101	NRSA02J-153X	MG R	15kΩ 1/10W J	*
R0102	NRSA02J-683X	MG R	68kΩ 1/10W J	*
R0103	NRSA02J-153X	MG R	15kΩ 1/10W J	*
R0104	NRSA02J-683X	MG R	68kΩ 1/10W J	*
R0105	NRSA02J-105X	MG R	1MΩ 1/10W J	*
R0106-09	NRSA02J-271X	MG R	270Ω 1/10W J	*
R0111	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0112	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R0113	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0114	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R0115	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0201	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R0203	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R0204	NRSA02J-563X	MG R	56kΩ 1/10W J	*
R0205	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R0207	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R0208	NRSA02J-563X	MG R	56kΩ 1/10W J	*
R0209	NRSA02J-123X	MG R	12kΩ 1/10W J	*
R0211	NRSA02J-123X	MG R	12kΩ 1/10W J	*
R0212	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R0214-15	NRSA02J-104X	MG R	100kΩ 1/10W J	*
R0216	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R0217	NRSA02J-123X	MG R	12kΩ 1/10W J	*
R0219	NRSA02J-123X	MG R	12kΩ 1/10W J	*
R0221	NRSA02J-104X	MG R	100kΩ 1/10W J	*
R0222	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R0223	NRSA02J-153X	MG R	15kΩ 1/10W J	*
R0225	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R0227	NRSA02J-104X	MG R	100kΩ 1/10W J	*
R0228	NRSA02J-153X	MG R	15kΩ 1/10W J	*
R0229	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R0231	NRSA02J-103X	MG R	10kΩ 1/10W J	*

Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R0232-33	NRS402J-122X	MG R	1.2kΩ 1/10W J *	
R0301	NRS402J-103X	MG R	10kΩ 1/10W J *	
R0401	NRS402J-102X	MG R	1kΩ 1/10W J *	
R0402-03	NRS402J-562X	MG R	5.6kΩ 1/10W J *	
R0404	NRS402J-102X	MG R	1kΩ 1/10W J *	
R0431	NRS402J-102X	MG R	1kΩ 1/10W J *	
R0432-33	NRS402J-562X	MG R	5.6kΩ 1/10W J *	
R0434	NRS402J-102X	MG R	1kΩ 1/10W J *	
R0451	NRS402J-273X	MG R	27kΩ 1/10W J *	
R0452	NRS402J-683X	MG R	68kΩ 1/10W J *	
R0453	NRS402J-0R0X	MG R	0.0Ω 1/10W J *	
R0454	NRS402J-473X	MG R	47kΩ 1/10W J *	
R0455	NRS402J-333X	MG R	33kΩ 1/10W J *	
R0456-57	NRS402J-473X	MG R	47kΩ 1/10W J *	
R0458	NRS402J-102X	MG R	1kΩ 1/10W J *	
R0459	NRS402J-223X	MG R	22kΩ 1/10W J *	
R0460	NRS402J-393X	MG R	39kΩ 1/10W J *	
R0461	NRS402J-273X	MG R	27kΩ 1/10W J *	
R0462	NRS402J-122X	MG R	1.2kΩ 1/10W J *	
R0463	NRS402J-273X	MG R	27kΩ 1/10W J *	
R0464	NRS402J-683X	MG R	68kΩ 1/10W J *	
R0465	NRS402J-0R0X	MG R	0.0Ω 1/10W J *	
R0466	NRS402J-473X	MG R	47kΩ 1/10W J *	
R0467	NRS402J-333X	MG R	33kΩ 1/10W J *	
R0468-69	NRS402J-473X	MG R	47kΩ 1/10W J *	
R0470	NRS402J-102X	MG R	1kΩ 1/10W J *	
R0471	NRS402J-223X	MG R	22kΩ 1/10W J *	
R0472	NRS402J-393X	MG R	39kΩ 1/10W J *	
R0473	NRS402J-273X	MG R	27kΩ 1/10W J *	
R0474	NRS402J-122X	MG R	1.2kΩ 1/10W J *	
R0475	NRS402J-123X	MG R	12kΩ 1/10W J *	
R0476	NRS402J-101X	MG R	100Ω 1/10W J *	
R0477	NRS402J-223X	MG R	22kΩ 1/10W J *	
R0478	NRS402J-101X	MG R	100Ω 1/10W J *	
R0479	NRS402J-223X	MG R	22kΩ 1/10W J *	
R0480	NRS402J-101X	MG R	100Ω 1/10W J *	
R0481-82	NRS402J-223X	MG R	22kΩ 1/10W J *	
R0483	NRS402J-183X	MG R	18kΩ 1/10W J *	
R0484	NRS402J-223X	MG R	22kΩ 1/10W J *	
R0485-86	NRS402J-103X	MG R	10kΩ 1/10W J *	
R0491	NRS402J-101X	MG R	100Ω 1/10W J *	
R0492	NRS402J-0R0X	MG R	0.0Ω 1/10W J *	
R0501	NRS402J-223X	MG R	22kΩ 1/10W J *	
R0502	NRS402J-332X	MG R	3.3kΩ 1/10W J *	
R0503	NRS402J-103X	MG R	10kΩ 1/10W J *	
R0504	NRS402J-104X	MG R	100kΩ 1/10W J *	
R0505	NRS402J-332X	MG R	3.3kΩ 1/10W J *	
R0506	NRS402J-122X	MG R	1.2kΩ 1/10W J *	
R0507	NRS402J-223X	MG R	22kΩ 1/10W J *	
R0508	NRS402J-103X	MG R	10kΩ 1/10W J *	
R0509	NRS402J-104X	MG R	100kΩ 1/10W J *	
R0510-11	NRS402J-681X	MG R	680Ω 1/10W J *	
R0512-13	NRS402J-223X	MG R	22kΩ 1/10W J *	
R0514	NRS402J-104X	MG R	100kΩ 1/10W J *	
R0516	NRS402J-103X	MG R	10kΩ 1/10W J *	
R0517	NRS402J-0R0X	MG R	0.0Ω 1/10W J *	
R0518	NRS402J-103X	MG R	10kΩ 1/10W J *	
R0519	NRS402J-0R0X	MG R	0.0Ω 1/10W J *	
<b>CAPACITOR</b>				
C0101	NCF21E2-104X	C CAP.	0.1μF 25V Z *	
C0103	NDC21HJ-221X	C CAP.	220pF 50V J *	
C0104	NEH71CH-475X	E CAP.	4.7μF 50V M *	
C0105	NCF21E2-104X	C CAP.	0.1μF 25V Z *	
C0106-08	NEH71CH-476X	E CAP.	47μF 16V M *	

Symbol No.	Part No.	Part Name	Description	Local
<b>CAPACITOR</b>				
C0109	NEH71HM-475X	E CAP.	4.7μF 50V M *	
C0110	NDC21HJ-221X	C CAP.	220pF 50V J *	
C0111-12	NDC21HJ-100X	C CAP.	100pF 50V J *	
C0114-15	NEH71CH-476X	E CAP.	47μF 16V M *	
C0116	NCF21E2-104X	C CAP.	0.1μF 25V Z *	
C0117-19	NEH71CH-476X	E CAP.	47μF 16V M *	
C0120	NCF21E2-104X	C CAP.	0.1μF 25V Z *	
C0121-22	NEH71CH-476X	E CAP.	47μF 16V M *	
C0123	NCF21E2-104X	C CAP.	0.1μF 25V Z *	
C0124-27	NDC21HJ-221X	C CAP.	220pF 50V J *	
C0128	NEH71CH-476X	E CAP.	47μF 16V M *	
C0129-33	NCF21E2-104X	C CAP.	0.1μF 25V Z *	
C0134	NEHE1EM-227X	E CAP.	220μF 16V M *	
C0135	NCF21E2-104X	C CAP.	0.1μF 25V Z *	
C0137	NEHE1EM-107X	E CAP.	100μF 25V M *	
C0138	NEH71CH-476X	E CAP.	47μF 16V M *	
C0139	NEHE1EM-227X	E CAP.	220μF 16V M *	
C0142	NCF21E2-104X	C CAP.	0.1μF 25V Z *	
C0144-45	NCF21E2-104X	C CAP.	0.1μF 25V Z *	
C0146	NEHE1EM-107X	E CAP.	100μF 25V M *	
C0147	NCB21HK-102X	C CAP.	1000pF 50V K *	
C0148-49	NCB21HK-222X	C CAP.	2200pF 50V K *	
C0150	NEH71CH-106X	E CAP.	10μF 16V M *	
C0201-02	NCF21C2-105X	C CAP.	1μF 16V Z *	
C0203	NEHE1EM-107X	E CAP.	100μF 25V M *	
C0204-05	NCF21C2-105X	C CAP.	1μF 16V Z *	
C0208	NCF21C2-105X	C CAP.	1μF 16V Z *	
C0209	NDC21HJ-470X	C CAP.	47pF 50V J *	
C0212	NDC21HJ-470X	C CAP.	47pF 50V J *	
C0213	NCF21C2-105X	C CAP.	1μF 16V Z *	
C0214	NEHE1EM-107X	E CAP.	100μF 25V M *	
C0217	NCF21C2-105X	C CAP.	1μF 16V Z *	
C0218	NDC21HJ-470X	C CAP.	47pF 50V J *	
C0219	NCF21C2-105X	C CAP.	1μF 16V Z *	
C0220	NDC21HJ-470X	C CAP.	47pF 50V J *	
C0223-25	NEH71CH-476X	E CAP.	47μF 16V M *	
C0226-29	NRS402J-0R0X	MG R	0.0Ω 1/10W J *	
C0301	NEH71CH-476X	E CAP.	47μF 16V M *	
C0401	NEH71EM-226X	E CAP.	22μF 25V M *	
C0402	NEH71CH-476X	E CAP.	47μF 16V M *	
C0403-04	NCB21HK-272X	C CAP.	2700pF 50V K *	
C0405-06	NCF21C2-105X	C CAP.	1μF 16V Z *	
C0407-10	NCF21E2-104X	C CAP.	0.1μF 25V Z *	
C0431	NEH71EM-226X	E CAP.	22μF 25V M *	
C0432	NEHE1EM-227X	E CAP.	220μF 16V M *	
C0433-34	NCB21HK-272X	C CAP.	2700pF 50V K *	
C0435	NCF21C2-105X	C CAP.	1μF 16V Z *	
C0436-39	NCF21E2-104X	C CAP.	0.1μF 25V Z *	
C0440	NCF21C2-105X	C CAP.	1μF 16V Z *	
C0451	NCF21C2-105X	C CAP.	1μF 16V Z *	
C0452	NDC21HJ-100X	C CAP.	100pF 50V J *	
C0453	NCB21HK-103X	C CAP.	0.01μF 50V K *	
C0454	NCB21EK-563X	C CAP.	0.056μF 25V K *	
C0456	NEHE1EM-107X	E CAP.	100μF 25V M *	
C0457	NCF21C2-105X	C CAP.	1μF 16V Z *	
C0458	NCB21EK-563X	C CAP.	0.056μF 25V K *	
C0459	NEHE1EM-107X	E CAP.	100μF 25V M *	
C0460	NCB21HK-103X	C CAP.	0.01μF 50V K *	
C0461	NDC21HJ-100X	C CAP.	100pF 50V J *	
C0462	NCF21C2-105X	C CAP.	1μF 16V Z *	
C0465-67	NCF21C2-105X	C CAP.	1μF 16V Z *	
C0468	NEH71CH-476X	E CAP.	47μF 16V M *	
C0471-72	NCF21C2-105X	C CAP.	1μF 16V Z *	
C0473	NCB21HK-821X	C CAP.	820pF 50V K *	
C0474	NDC21HJ-470X	C CAP.	47pF 50V J *	
C0475	NEH71CH-476X	E CAP.	47μF 16V M *	
C0476	NCF21C2-105X	C CAP.	1μF 16V Z *	
C0479-80	NDC21HJ-820X	C CAP.	82pF 50V J *	

Symbol No.	Part No.	Part Name	Description	Local
<b>CAPACITOR</b>				
C0501-02	NCF21C2-105X	C CAP.	1μF 16V Z *	
C0503-04	NDC21HJ-100X	C CAP.	100pF 50V J *	
C0505	NEH71CH-476X	E CAP.	47μF 16V M *	
C0506-07	NEH71HM-106X	E CAP.	10μF 50V M *	
C0508	NEH71CH-476X	E CAP.	47μF 16V M *	
C0701-02	NCB21HK-222X	C CAP.	2200pF 50V K *	
<b>COIL</b>				
L0102-05	NQLO2BJ-4R7X	COIL	4.7μH *	
L0701-02	NQLO2BJ-100X	COIL	10μH *	
<b>DIODE</b>				
D0201-02	MA3062/N/-X	ZENER DIODE		
D0451	MA111-X	SI DIODE		
D0452	MA3062/N/-X	ZENER DIODE		
D0453	MA111-X	SI DIODE		
D0454	MA3062/N/-X	ZENER DIODE		
D0501-02	MA3150/N/-X	ZENER DIODE		
D0503	MA3062/N/-X	ZENER DIODE		
<b>TRANSISTOR</b>				
Q0301	DTCL44EKA-X	DTGL TRANSISTOR		
Q0451-52	DTCL33TK-X	DTGL TRANSISTOR		
Q0453	DTCL44EKA-X	DTGL TRANSISTOR		
Q0501	2SA162/YG/-X	SI TRANSISTOR		
Q0502-03	DTCL33TK-X	DTGL TRANSISTOR		
<b>IC</b>				
IC0101	TC9471F	I.C. (DTGL-MOS)		
IC0102	MM1382/O/-X	I.C. (MOMO-ANA)		
IC0201-03	BA4558F-X	I.C. (MOMO-ANA)		
IC0301	TC4052BF/N/-XE	I.C. (DTGL-MOS)		
IC0401	TD4731SD	I.C. (DTGL-OTHER)		
IC0431	TD4731SD	I.C. (DTGL-OTHER)		
IC0451-53	BA4558F-X	I.C. (MOMO-ANA)		
IC0501	BA4558F-X	I.C. (MOMO-ANA)		
<b>OTHERS</b>				
J0001	QW0294-001	PIN JACK		
J0002	QW0006-002	PUSH TERMINAL		
K0101-05	CE42681-001Y	BEADS CORE		
LC0101-02	CE42482-001Y	EMI FILTER		
X0101	MA30288-001X	CRYSTAL		

## IF PW BOARD ASS'Y (SMD0F001A-U2)

Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R0020	NRS402J-472X	MG R	4.7kΩ 1/10W J	*
R0021	NRS402J-122X	MG R	1.2kΩ 1/10W J	*
R0022	NRS402J-331X	MG R	330Ω 1/10W J	*
R0023	NRS402J-680X	MG R	68Ω 1/10W J	*
R0024	NRS402J-330X	MG R	33Ω 1/10W J	*
R0025	NRS402J-222X	MG R	2.2kΩ 1/10W J	*
R0026	NRS402J-122X	MG R	1.2kΩ 1/10W J	*
R0027-28	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
R0030-31	NRS402J-150X	MG R	15Ω 1/10W J	*
R0050-51	NRS402J-121X	MG R	120Ω 1/10W J	*
R0052-53	NRS402J-561X	MG R	560Ω 1/10W J	*
R0057	NRS402J-472X	MG R	4.7kΩ 1/10W J	*
R0058	NRS402J-272X	MG R	2.7kΩ 1/10W J	*
R0059	NRS402J-273X	MG R	27kΩ 1/10W J	*
R0060-61	NRS402J-471X	MG R	47Ω 1/10W J	*
R0062	NRS402J-102X	MG R	1kΩ 1/10W J	*
R0063	NRS402J-822X	MG R	8.2kΩ 1/10W J	*
R0064	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
R0065	NRS402J-470X	MG R	47Ω 1/10W J	*
R0070-71	NRS402J-393X	MG R	39kΩ 1/10W J	*
R0080-81	NRS402J-473X	MG R	47kΩ 1/10W J	*
R0082	NRS402J-272X	MG R	2.7kΩ 1/10W J	*
R0101	NRS402J-822X	MG R	8.2kΩ 1/10W J	*
R0102	NRS402J-471X	MG R	47Ω 1/10W J	*
R0103	NRS402J-102X	MG R	1kΩ 1/10W J	*
R0104	NRS402J-121X	MG R	120Ω 1/10W J	*
R0105	NRS402J-151X	MG R	150Ω 1/10W J	*
R0106	NRS402J-181X	MG R	180Ω 1/10W J	*
R0107	NRS402J-221X	MG R	220Ω 1/10W J	*
R0108	NRS402J-102X	MG R	1kΩ 1/10W J	*
R0109	NRS402J-181X	MG R	180Ω 1/10W J	*
R0111-12	NRS402J-151X	MG R	150Ω 1/10W J	*
R0113	NRS402J-391X	MG R	390Ω 1/10W J	*
R0114	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
R0116	NRS402J-102X	MG R	1kΩ 1/10W J	*
R0117	NRS402J-332X	MG R	3.3kΩ 1/10W J	*
R0120-24	NRS402J-103X	MG R	10kΩ 1/10W J	*
R0140	NRS402J-474X	MG R	470kΩ 1/10W J	*
R0141	NRS402J-101X	MG R	100Ω 1/10W J	*
R0142	NRS402J-391X	MG R	390Ω 1/10W J	*
R0143	NRS402J-750X	MG R	75Ω 1/10W J	*
R0144	NRS402J-474X	MG R	470kΩ 1/10W J	*
R0145	NRS402J-332X	MG R	3.3kΩ 1/10W J	*
R0146	NRS402J-104X	MG R	10kΩ 1/10W J	*
R0601	NRS402J-822X	MG R	8.2kΩ 1/10W J	*
R0602	NRS402J-102X	MG R	1kΩ 1/10W J	*
R0603	NRS402J-104X	MG R	10kΩ 1/10W J	*
R0604	NRS402J-683X	MG R	68kΩ 1/10W J	*
R0605-06	NRS402J-392X	MG R	3.9kΩ 1/10W J	*
R0607-08	NRS402J-562X	MG R	5.6kΩ 1/10W J	*
Δ R0609	QR29017-470	FUSI RESISTOR	47 Ω 1/4W J	*
CAPACITOR				
C0020-25	NCB21HK-472X	C CAP.	47000pF 50V K	*
C0030	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
C0040	NCB21HK-682X	C CAP.	68000pF 50V K	*
C0041	QETN1CM-1072	E CAP.	1000pF 16V M	*
C0042	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C0043	QETN1CM-1072	E CAP.	1000pF 16V M	*
C0044	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C0045	NCB21HK-472X	C CAP.	47000pF 50V K	*
C0046	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C0047	QETN1CM-2272	E CAP.	2200pF 16V M	*
C0050	QETN1HM-1052	E CAP.	1μF 50V M	*
C0051	NCB21HK-472X	C CAP.	47000pF 50V K	*

Symbol No.	Part No.	Part Name	Description	Local
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**CAPACITOR**

C0053	NDC21HJ-6R0X	C CAP.	6.0pF 50V J	*
C0054	NDC21HK-103X	C CAP.	0.01uF 50V K	*
C0055	QETN1CM-107Z	E CAP.	100uF 16V M	*
C0056	QETN1CM-474Z	E CAP.	0.47uF 50V M	*
C0057	NDC21HJ-102X	C CAP.	1000pF 50V J	*
C0058	NDC21HK-472X	C CAP.	4700pF 50V K	*
C0060	NDC21HJ-120X	C CAP.	12pF 50V J	*
C0061	NDC21HJ-7R0X	C CAP.	7.0pF 50V J	*

C0062	QETN1CM-474Z	E CAP.	0.47uF 50V M	*
C0063	NDC21HK-103X	C CAP.	0.01uF 50V K	*
C0064	NDC21HK-472X	C CAP.	4700pF 50V K	*
C0065	QETN1CM-105Z	E CAP.	1uF 50V M	*
C0067	NDC21HJ-120X	C CAP.	12pF 50V J	*
C0069-70	NDC21HK-103X	C CAP.	0.01uF 50V K	*
C0071	QETN1CM-336Z	E CAP.	33uF 50V M	*
C0080-81	NDC21HK-472X	C CAP.	4700pF 50V K	*

C0101	QETN1CM-476Z	E CAP.	47uF 16V M	*
C0102	NDC21HJ-221X	C CAP.	220pF 50V J	*
C0103-04	NDC21HJ-121X	C CAP.	120pF 50V J	*
C0105	NDC21HK-103X	C CAP.	0.01uF 50V K	*
C0140	QETN1CM-335Z	E CAP.	3.3uF 50V M	*
C0141	NDC21HJ-561X	E CAP.	560pF 50V J	*
C0142	QETN1CM-105Z	E CAP.	1uF 50V M	*
C0143	QFLC1HJ-683Z	M CAP.	0.068uF 50V J	*

C0144	QETN1CM-335Z	E CAP.	3.3uF 50V M	*
C0145	NDC21HK-222X	C CAP.	2200pF 50V K	*
C0601	QFLC1HJ-183Z	M CAP.	0.018uF 50V J	*
C0602	QETN1CM-476Z	E CAP.	47uF 16V M	*
C0603	QETN1CM-106Z	E CAP.	10uF 50V M	*
C0604	QETN1CM-105Z	E CAP.	1uF 50V M	*
C0605	QETN1CM-477Z	E CAP.	470uF 16V M	*
C0606	NDC21HK-103X	C CAP.	0.01uF 50V K	*

**TRANSFORMER**

T0020	QOR0626-001	I.F. TRANSF.		*
T0050	CEL7001-307	C. WAVE TRANSF.		*
T0051	CEL7001-306	C. WAVE TRANSF.		*

**COIL**

L0020	QQL2014-R47	PEAKING COIL	0.47uH	*
L0021	NQL011K-1R5X	COIL	1.5uH	*
L0040	NQL024J-120X	COIL	12uH	*
L0042	NQL024J-330X	COIL	33uH	*
L0050-53	NQL011K-8R2X	COIL	8.2uH	*
L0054	NQL024J-330X	COIL	33uH	*
L0070	NQL011K-5R6X	COIL	5.6uH	*
L0101	NQL011K-6R8X	COIL	6.8uH	*
L0102-03	NQL011K-100X	COIL	10uH	*
L0104	NQL011K-8R2X	COIL	8.2uH	*

**DIODE**

D0020-21	DAN235K-X	CHIP DIODE		*
D0050-51	DAN235K-X	CHIP DIODE		*

**TRANSISTOR**

Q0012	2SC5083/L-P/-T	SI. TRANSISTOR		*
Q0080	2SC2712/YG/-X	SI. TRANSISTOR		*
Q0101	2SC2712/YG/-X	SI. TRANSISTOR		*
Q0102	2SA1162/YG/-Y	SI. TRANSISTOR		*
Q0103	DTL144EKA-X	DTL TRANSISTOR		*
Q0104	2SC2712/YG/-Y	SI. TRANSISTOR		*

Symbol No.	Part No.	Part Name	Description	Local
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**TRANSISTOR**

Q0106	2SC2712/YG/-X	SI. TRANSISTOR		*
Q0107	2SA1162/YG/-X	SI. TRANSISTOR		*
Q0108	DTL144EKA-X	DTL TRANSISTOR		*
Q0109-11	2SC2712/YG/-X	SI. TRANSISTOR		*
Q0120-26	DTL144EKA-X	DTL TRANSISTOR		*
Q0601-02	2SC2712/YG/-X	SI. TRANSISTOR		*

**IC**

IC0010	TAB865BN	I.C. (MONO-ANA)		*
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**OTHERS**

CF0010-11	FTP40.40MF	CERAMIC FILTER		*
CF0100	TP55.5M	CERAMIC FILTER		*
CF0140	CSB503F30-T2	CER. RESONATOR		*
SF0010	QAK0531-001	SAW FILTER		*
SF0011	CE42574-702	SAW FILTER		*
SF0012	QAK0574-001	SAW FILTER		*
TC0052	QAT7004-100	TRIM. CAP.	10pF 100V	*
TC0059	QAT7004-100	TRIM. CAP.	10pF 100V	*

W0008	NRS402J-0R0X	MG R	0.00 1/10W J	*
W0013	NRS402J-0R0X	MG R	0.00 1/10W J	*
W0015	NRS402J-0R0X	MG R	0.00 1/10W J	*
W0025-26	NRS402J-0R0X	MG R	0.00 1/10W J	*
W0028-29	NRS402J-0R0X	MG R	0.00 1/10W J	*
W0031-32	NRS402J-0R0X	MG R	0.00 1/10W J	*
W0036	NRS402J-0R0X	MG R	0.00 1/10W J	*
W0073-75	NRS402J-0R0X	MG R	0.00 1/10W J	*

W0094-99	NRS402J-0R0X	MG R	0.00 1/10W J	*
Y0002	NRS402J-0R0X	MG R	0.00 1/10W J	*

**AV TERMINAL PW BOARD ASS'Y (SMD0J001A-U2)**

Symbol No.	Part No.	Part Name	Description	Local
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**RESISTOR**

R0104	QRE141J-750Y	C R	750 1/4W J	*
R0106	QRE141J-750Y	C R	750 1/4W J	*
R0108	QRE141J-750Y	C R	750 1/4W J	*
R0112	QRE141J-750Y	C R	750 1/4W J	*
R0204	QRE141J-750Y	C R	750 1/4W J	*
R0304	QRE141J-750Y	C R	750 1/4W J	*

**CAPACITOR**

C0102-04	QEK1CM-106Z	E CAP.	10uF 16V M	*
C0105-08	QCB31HK-472Z	E CAP.	4700pF 50V K	*
C0109	QETN1CM-108Z	E CAP.	1000pF 50V M	*
C0202	QCB31HK-103Z	E CAP.	0.01uF 50V K	*
C0203-06	QCB31HK-472Z	E CAP.	4700pF 50V K	*
C0209	QETN1CM-108Z	E CAP.	1000pF 50V M	*
C0302	QCB31HK-103Z	E CAP.	0.01uF 50V K	*
C0305-06	QCB31HK-472Z	E CAP.	4700pF 50V K	*

**COIL**

L0101-04	QQL211X-5R6Y	COIL	5.6uH	*
L0105	QQR0716-001Z	LEAD CORE		*
L0201-04	QQL211X-5R6Y	COIL	5.6uH	*
L0205	QQR0716-001Z	LEAD CORE		*
L0301-02	QQL211X-5R6Y	COIL	5.6uH	*
L0303	QQR0716-001Z	LEAD CORE		*

**DIODE**

D0101-04	HTZ113B-T2	ZENER DIODE		*
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**OTHERS**

CN0008	CNA001N-3SR-J	HQF CONNECTOR		*
J0001-03	CE40529-006	SCART CONNECTOR		*

**SUB MICON & AUTO PANORAMA PW BOARD ASS'Y (SMD0W001A-U2)**

Symbol No.	Part No.	Part Name	Description	Local
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**RESISTOR**

R0001	NRS402J-101X	MG R	100k 1/10W J	*
R0002	NRS402J-104X	MG R	100k 1/10W J	*
R0003	NRS402J-393X	MG R	39k 1/10W J	*
R0004	NRS402J-332X	MG R	3.3k 1/10W J	*
R0005-07	NRS402J-102X	MG R	1k 1/10W J	*
R0008	NRS402J-472X	MG R	4.7k 1/10W J	*
R0009	NRS402J-331X	MG R	330k 1/10W J	*
R0010	NRS402J-102X	MG R	1k 1/10W J	*

R0011	NRS402J-332X	MG R	3.3k 1/10W J	*
R0012	NRS402J-272X	MG R	2.7k 1/10W J	*
R0020-26	NRS402J-102X	MG R	1k 1/10W J	*
R0045	NRS402J-472X	MG R	4.7k 1/10W J	*
R0051	NRS402J-472X	MG R	4.7k 1/10W J	*
R0054	NRS402J-103X	MG R	10k 1/10W J	*
R0060	NRS402J-823X	MG R	82k 1/10W J	*
R0751	NRS402J-102X	MG R	1k 1/10W J	*

R0752-57	NRS402J-103X	MG R	10k 1/10W J	*
R0758	NRS402J-472X	MG R	4.7k 1/10W J	*
R0759-60	NRS402J-103X	MG R	10k 1/10W J	*
R0761-66	NRS402J-822X	MG R	8.2k 1/10W J	*

**CAPACITOR**

C0001	NEWS1AM-336F	CHIP AL BP E CAP	33uF 10V M	*
C0002	NDC21HJ-221X	C CAP.	220pF 50V J	*
C0003	NDC21HJ-220X	C CAP.	22pF 50V J	*
C0004-05	NDC21HK-104X	CHIP CAP.	0.1uF 50V K	*
C0006	NEHT1CM-476X	E CAP.	47uF 16V M	*
C0009	NEHT1CM-106X	E CAP.	10uF 16V M	*
C0010-11	NDC21HK-104X	CHIP CAP.	0.1uF 50V K	*
C0751	NEHT1CM-476X	E CAP.	47uF 16V M	*
C0752-57	NDC21HK-104X	CHIP CAP.	0.1uF 50V K	*

**DIODE**

D0005	MA3051/M/-X	ZENER DIODE		*
D0751	MA111-X	SI. DIODE		*
D0752-53	MA3062/M/-X	ZENER DIODE		*

**TRANSISTOR**

Q0001-02	2SC2412K/OR/-X	SI. TRANSISTOR		*
Q0003	2SA1037K/OR/-X	SI. TRANSISTOR		*
Q0004-05	2SC2412K/OR/-X	SI. TRANSISTOR		*
Q0751-52	2SC2712/YG/-X	SI. TRANSISTOR		*

**IC**

IC0001	JCC5035	I C		*
IC0002	MM1382/Q/-X	I.C. (MONO-ANA)		*
IC0751	SAB-C161RT	I C		*
IC0752	MX23C4000P10MD	I C		*
IC0753	AT24C16N-10SC	I C		*

**OTHERS**

X0001	CEMS007-03Z	IC SOCKET		*
X0751	CE42364-001Y	CER. RESONATOR		*
	QAK0534-001	C RESONATOR		*

## 100Hz PW BOARD ASS'Y (SMD02002A-U2)

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R0001-02	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0004	NRSA02J-222X	MG R	2.2kΩ 1/10W J *	
R0005	NRSA02J-472X	MG R	4.7kΩ 1/10W J *	
R0101	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0102	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R0103	NRSA02J-331X	MG R	330Ω 1/10W J *	
R0104	NRSA02J-222X	MG R	2.2kΩ 1/10W J *	
R0105	NRSA02J-473X	MG R	47kΩ 1/10W J *	
R0106	NRSA02J-273X	MG R	27kΩ 1/10W J *	
R0107	NRSA02J-331X	MG R	330Ω 1/10W J *	
R0108	NRSA02J-181X	MG R	180Ω 1/10W J *	
R0109-10	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0111	NRSA02J-222X	MG R	2.2kΩ 1/10W J *	
R0112	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0113	NRSA02J-471X	MG R	470Ω 1/10W J *	
R0114	NRSA02J-221X	MG R	220Ω 1/10W J *	
R0121	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0122	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R0123	NRSA02J-331X	MG R	330Ω 1/10W J *	
R0124	NRSA02J-222X	MG R	2.2kΩ 1/10W J *	
R0125	NRSA02J-473X	MG R	47kΩ 1/10W J *	
R0126	NRSA02J-273X	MG R	27kΩ 1/10W J *	
R0127	NRSA02J-271X	MG R	270Ω 1/10W J *	
R0128	NRSA02J-181X	MG R	180Ω 1/10W J *	
R0129	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0130	NRSA02J-330X	MG R	33Ω 1/10W J *	
R0131	NRSA02J-222X	MG R	2.2kΩ 1/10W J *	
R0132	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0133	NRSA02J-471X	MG R	470Ω 1/10W J *	
R0134	NRSA02J-221X	MG R	220Ω 1/10W J *	
R0141	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0142	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R0143	NRSA02J-331X	MG R	330Ω 1/10W J *	
R0144	NRSA02J-222X	MG R	2.2kΩ 1/10W J *	
R0145	NRSA02J-473X	MG R	47kΩ 1/10W J *	
R0146	NRSA02J-273X	MG R	27kΩ 1/10W J *	
R0147	NRSA02J-271X	MG R	270Ω 1/10W J *	
R0148	NRSA02J-181X	MG R	180Ω 1/10W J *	
R0149	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0150	NRSA02J-150X	MG R	15Ω 1/10W J *	
R0151	NRSA02J-222X	MG R	2.2kΩ 1/10W J *	
R0152	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0153	NRSA02J-471X	MG R	470Ω 1/10W J *	
R0154	NRSA02J-221X	MG R	220Ω 1/10W J *	
R0155	NRSA02J-100X	MG R	10Ω 1/10W J *	
R0156	NRSA02J-122X	MG R	1.2kΩ 1/10W J *	
R0157	NRSA02J-560X	MG R	56Ω 1/10W J *	
R0158	NRSA02J-680X	MG R	68Ω 1/10W J *	
R0159	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0160	NRSA02J-333X	MG R	33kΩ 1/10W J *	
R0161	NRSA02J-223X	MG R	22kΩ 1/10W J *	
R0162	NRSA02J-122X	MG R	1.2kΩ 1/10W J *	
R0163	NRSA02J-181X	MG R	180Ω 1/10W J *	
R0164	NRSA02J-680X	MG R	68Ω 1/10W J *	
R0165	NRSA02J-0R0X	MG R	0.0Ω 1/10W J *	
R0171	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0172	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R0173	NRSA02J-182X	MG R	1.8kΩ 1/10W J *	
R0174	NRSA02J-560X	MG R	56Ω 1/10W J *	
R0175	NRSA02J-105X	MG R	1MΩ 1/10W J *	
R0176	NRSA02J-681X	MG R	680Ω 1/10W J *	
R0177	NRSA02J-104X	MG R	100kΩ 1/10W J *	
R0178	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0179	NRSA02J-471X	MG R	470Ω 1/10W J *	
R0180	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R0181-82	NRSA02F-392X	MG R	3.9kΩ 1/10W F	

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R0183-84	NRSA02J-122X	MG R	1.2kΩ 1/10W J *	
R0185	NRSA02F-392X	MG R	3.9kΩ 1/10W F	
R0186	NRSA02F-332X	MG R	3.3kΩ 1/10W F	
R0187	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0188	NRSA02J-563X	MG R	56kΩ 1/10W J *	
R0189	NRSA02J-470X	MG R	47Ω 1/10W J *	
R0190	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R0191	NRSA02J-223X	MG R	22kΩ 1/10W J *	
R0192	NRSA02J-220X	MG R	22Ω 1/10W J *	
R0193	NRSA02J-104X	MG R	100kΩ 1/10W J *	
R0201-16	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0221-36	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0303-18	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0401	NRSA02J-103X	MG R	10kΩ 1/10W J *	
R0403	NRSA02J-223X	MG R	22kΩ 1/10W J *	
R0404	NRSA02J-222X	MG R	2.2kΩ 1/10W J *	
R0406	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R0408	NRSA02J-561X	MG R	560Ω 1/10W J *	
R0409	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R0411	NRSA02J-0R0X	MG R	0.0Ω 1/10W J *	
R0412	NRSA02J-561X	MG R	560Ω 1/10W J *	
R0413	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0415	NRSA02J-151X	MG R	150Ω 1/10W J *	
R0417	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R0418	NRSA02J-220X	MG R	22Ω 1/10W J *	
R0419	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0420	NRSA02J-471X	MG R	470Ω 1/10W J *	
R0425	NRSA02J-0R0X	MG R	0.0Ω 1/10W J *	
R0426	NRSA02J-122X	MG R	1.2kΩ 1/10W J *	
R0428	NRSA02F-472X	MG R	4.7kΩ 1/10W F	
R0429	NRSA02F-333X	MG R	33kΩ 1/10W F	
R0431	NRSA02J-0R0X	MG R	0.0Ω 1/10W J *	
R0432	NRSA02J-561X	MG R	560Ω 1/10W J *	
R0433	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0435	NRSA02J-151X	MG R	150Ω 1/10W J *	
R0437	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R0438	NRSA02J-220X	MG R	22Ω 1/10W J *	
R0439	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0440	NRSA02J-471X	MG R	470Ω 1/10W J *	
R0441	NRSA02J-122X	MG R	1.2kΩ 1/10W J *	
R0442	NRSA02F-472X	MG R	4.7kΩ 1/10W F	
R0443	NRSA02F-333X	MG R	33kΩ 1/10W F	
R0451	NRSA02J-0R0X	MG R	0.0Ω 1/10W J *	
R0452	NRSA02J-561X	MG R	560Ω 1/10W J *	
R0453	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0455	NRSA02J-151X	MG R	150Ω 1/10W J *	
R0457	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R0458	NRSA02J-220X	MG R	22Ω 1/10W J *	
R0459	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0460	NRSA02J-471X	MG R	470Ω 1/10W J *	
R0461	NRSA02J-122X	MG R	1.2kΩ 1/10W J *	
R0462	NRSA02F-472X	MG R	4.7kΩ 1/10W F	
R0463	NRSA02F-333X	MG R	33kΩ 1/10W F	
R0471	NRSA02J-0R0X	MG R	0.0Ω 1/10W J *	
R0472	NRSA02J-391X	MG R	390Ω 1/10W J *	
R0473	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0475	NRSA02J-330X	MG R	33Ω 1/10W J *	
R0476	NRSA02J-122X	MG R	1.2kΩ 1/10W J *	
R0477	NRSA02J-102X	MG R	1kΩ 1/10W J *	
R0478	NRSA02J-220X	MG R	22Ω 1/10W J *	
R0479	NRSA02J-101X	MG R	100Ω 1/10W J *	
R0480	NRSA02J-221X	MG R	220Ω 1/10W J *	
R0486	NRSA02J-683X	MG R	68kΩ 1/10W J *	
R0487	NRSA02J-103X	MG R	10kΩ 1/10W J *	
R0488	NRSA02J-223X	MG R	22kΩ 1/10W J *	
R0489	NRSA02J-562X	MG R	5.6kΩ 1/10W J *	

△ Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R0491-92	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0501	NRSA02J-473X	MG R	47kΩ 1/10W J	*
R0504	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
R0505	NRSA02J-272X	MG R	2.7kΩ 1/10W J	*
R0506	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
R0507	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R0512	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R0514-15	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
R0516	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R0602-03	NRSA02J-680X	MG R	68Ω 1/10W J	*
R0604	QRM143J-221X	C R	220Ω 1/4W J	*
R0606	NRSA02J-680X	MG R	68Ω 1/10W J	*
R0607-08	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R0609	NRSA02J-100X	MG R	10Ω 1/10W J	*
R0610	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R0611	NRSA02J-100X	MG R	10Ω 1/10W J	*
R0612-13	NRSA02J-560X	MG R	56Ω 1/10W J	*
R0614	NRSA02J-100X	MG R	10Ω 1/10W J	*
R0615	NRSA02J-822X	MG R	8.2kΩ 1/10W J	*
R0616	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R0704	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R0705-06	NRSA02J-123X	MG R	12kΩ 1/10W J	*
R0708-09	NRSA02J-123X	MG R	12kΩ 1/10W J	*
R0714	NRSA02J-123X	MG R	12kΩ 1/10W J	*
R0715	NRSA02J-333X	MG R	33kΩ 1/10W J	*
R0716	NRSA02J-273X	MG R	27kΩ 1/10W J	*
R0717	NRSA02J-123X	MG R	12kΩ 1/10W J	*
R0718	NRSA02J-683X	MG R	68kΩ 1/10W J	*
R0719	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
R0720-21	NRSA02J-123X	MG R	12kΩ 1/10W J	*
R0723	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
R0724	NRSA02J-272X	MG R	2.7kΩ 1/10W J	*
R0726	NRSA02J-563X	MG R	56kΩ 1/10W J	*
R0727	NRSA02J-224X	MG R	220kΩ 1/10W J	*
R0731	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R0733	NRSA02J-154X	MG R	150kΩ 1/10W J	*
R0734	NRSA02J-123X	MG R	12kΩ 1/10W J	*
R0736	NRSA02J-123X	MG R	12kΩ 1/10W J	*
R0737	NRSA02J-224X	MG R	220kΩ 1/10W J	*
R0738	NRSA02J-273X	MG R	27kΩ 1/10W J	*
R0739	NRSA02J-153X	MG R	15kΩ 1/10W J	*
R0740	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
R0741	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R0742	NRSA02J-224X	MG R	220kΩ 1/10W J	*
R0743	NRSA02J-683X	MG R	68kΩ 1/10W J	*
R0744	NRSA02J-224X	MG R	220kΩ 1/10W J	*
R0745	NRSA02J-563X	MG R	56kΩ 1/10W J	*
R0746	NRSA02J-224X	MG R	220kΩ 1/10W J	*
CAPACITOR				
C0001	NEH71CH-476X	E CAP.	47μF 16V M	
C0002	NCF21EZ-104X	C CAP.	0.1μF 25V Z	*
C0003	NEH71CH-476X	E CAP.	47μF 16V M	
C0004	NCF21EZ-104X	C CAP.	0.1μF 25V Z	*
C0005	NEH71CH-476X	E CAP.	47μF 16V M	
C0006	NCF21EZ-104X	C CAP.	0.1μF 25V Z	*
C0007	NEH71CH-476X	E CAP.	47μF 16V M	
C0008	NCF21EZ-104X	C CAP.	0.1μF 25V Z	*
C0009	NDCC21HJ-121X	C CAP.	120pF 50V J	*
C0011	NDCC21HJ-270X	C CAP.	27pF 50V J	*
C0102	NDCC21HJ-121X	C CAP.	120pF 50V J	*
C0103	NDCC21HJ-680X	C CAP.	68pF 50V J	*
C0104	NEH51EH-106X	CHIP AL BP E CAP	10μF 25V M	
C0105	NCF21HZ-224X	C CAP.	0.22μF 50V Z	*
C0106	NCF21EZ-104X	C CAP.	0.1μF 25V Z	*
C0107	NDCC21HJ-390X	C CAP.	39pF 50V J	*
C0108	NEH71CH-476X	E CAP.	47μF 16V M	

Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C0708	NB21HK-103X	C CAP.	0.01uF 50V K	*
C0709	NCF21E2-104X	C CAP.	0.1uF 25V Z	*
C0710	NEH71CM-106X	E CAP.	10uF 16V M	*
C0711	NCF21E2-104X	C CAP.	0.1uF 25V Z	*
C0712	NEH71CM-106X	E CAP.	10uF 16V M	*
C0713	NB21HK-473X	C CAP.	0.047uF 50V K	*
COIL				
L0001-05	NQ102BJ-4R7X	COIL	4.7uH	*
L0101	NQ1011K-3R3X	COIL	3.3uH	*
L0121	NQ1011K-3R3X	COIL	3.3uH	*
L0141	NQ1011K-3R3X	COIL	3.3uH	*
L0161	NQ102BJ-100X	COIL	10uH	*
L0162	NQ102BJ-3R3X	COIL	3.3uH	*
L0163-64	NQ102BJ-100X	COIL	10uH	*
L0201-02	NQ102BJ-100X	COIL	10uH	*
L0301-02	NQ102BJ-4R7X	COIL	4.7uH	*
DIODE				
D0001	MA152MK-X	SI DIODE		*
D0101-02	MA3068/M-X	ZENER DIODE		*
D0103	MA3043-X	ZENER DIODE		*
D0104-05	MA111-X	SI DIODE		*
D0106	MA3068/M-X	ZENER DIODE		*
D0107	MA111-X	SI DIODE		*
D0401	MA111-X	SI DIODE		*
D0403-10	MA3068/M-X	ZENER DIODE		*
D0411-13	MA111-X	SI DIODE		*
D0414	MA3068/M-X	ZENER DIODE		*
D0701	MA111-X	SI DIODE		*
TRANSISTOR				
Q0101	2SA1162/YG/-X	SI TRANSISTOR		*
Q0102	2SC2712/YG/-X	SI TRANSISTOR		*
Q0103	2SA1162/YG/-X	SI TRANSISTOR		*
Q0104	2SC2712/YG/-X	SI TRANSISTOR		*
Q0105	2SA1162/YG/-X	SI TRANSISTOR		*
Q0106-07	2SC2712/YG/-X	SI TRANSISTOR		*
Q0108	2SA1162/YG/-X	SI TRANSISTOR		*
Q0109-10	2SC2712/YG/-X	SI TRANSISTOR		*
Q0111	2SA1162/YG/-X	SI TRANSISTOR		*
Q0121	2SA1162/YG/-X	SI TRANSISTOR		*
Q0122	2SC2712/YG/-X	SI TRANSISTOR		*
Q0123	2SA1162/YG/-X	SI TRANSISTOR		*
Q0124	2SC2712/YG/-X	SI TRANSISTOR		*
Q0141	2SA1162/YG/-X	SI TRANSISTOR		*
Q0142	2SC2712/YG/-X	SI TRANSISTOR		*
Q0143	2SA1162/YG/-X	SI TRANSISTOR		*
Q0144	2SC2712/YG/-X	SI TRANSISTOR		*
Q0151-52	2SC2712/YG/-X	SI TRANSISTOR		*
Q0153	2SA1162/YG/-X	SI TRANSISTOR		*
Q0154	2SC2712/YG/-X	SI TRANSISTOR		*
Q0155	2SA1162/YG/-X	SI TRANSISTOR		*
Q0402	2SC2712/YG/-X	SI TRANSISTOR		*
Q0403-05	2SA1162/YG/-X	SI TRANSISTOR		*
Q0411	2SA1162/YG/-X	SI TRANSISTOR		*
Q0412-15	2SC2712/YG/-X	SI TRANSISTOR		*
Q0431	2SA1162/YG/-X	SI TRANSISTOR		*
Q0432-35	2SC2712/YG/-X	SI TRANSISTOR		*
Q0451	2SA1162/YG/-X	SI TRANSISTOR		*
Q0452-55	2SC2712/YG/-X	SI TRANSISTOR		*
Q0471	2SA1162/YG/-X	SI TRANSISTOR		*
Q0472-74	2SC2712/YG/-X	SI TRANSISTOR		*

Symbol No.	Part No.	Part Name	Description	Local
TRANSISTOR				
Q0501	2SC2712/YG/-X	SI TRANSISTOR		*
Q0601	2SC2712/YG/-X	SI TRANSISTOR		*
Q0702	2SC2712/YG/-X	SI TRANSISTOR		*
IC				
IC0101	SDA9206	I C		*
IC0102	TC4W66F-X	I C (DIGI-MOS)		*
IC0201	SDA9400	I C		*
IC0301	JCE5043	I C		*
IC0401	DDP3310B/03-M	I C		*
IC0601	SN74LV04ANS-X	I C		*
IC0602	TC74AC00F-X	I C (DIGI-MOS)		*
IC0603	MM1382/Q/-X	I C (MONO-ANA)		*
IC0701-02	NJM556AM-XE	I C		*
OTHERS				
LC0001-04	CE42482-103Y	EMI FILTER		*
LC0101-03	CE42482-470Y	EMI FILTER		*
LC0104	CE42126-101Y	EMI FILTER		*
LC0201	CE42482-103Y	EMI FILTER		*
LC0401-11	CE42126-220Y	EMI FILTER		*
LC0601	CE42126-101Y	EMI FILTER		*
LC0602	CE42482-470Y	EMI FILTER		*
LC0603	CE42126-101Y	EMI FILTER		*
X0101	QX0549-001Z	X TAL		*
X0201	QX0359-001Z	CRYSTAL		*
X0401	QX0548-001Z	X TAL		*
Y0001-14	NRS402J-0R0X	MG R	0.00 1/10W J	*
Y0017-28	NRS402J-0R0X	MG R	0.00 1/10W J	*

AV-28WZ4EP / AV-28WZ4EPS

PRINTED WIRING BOARD PARTS LIST

MAIN PW BOARD ASS'Y (SMD-1003A-U2)

Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R1002	NRS402J-103X	MG R	10kΩ 1/10W J	*
R1003-06	NRS402J-102X	MG R	1kΩ 1/10W J	*
R1101-03	NRS402J-102X	MG R	1kΩ 1/10W J	*
R1104	NRS402J-681X	MG R	680Ω 1/10W J	*
R1105	NRS402J-392X	MG R	3.9kΩ 1/10W J	*
R1107	NRS402J-391X	MG R	390Ω 1/10W J	*
R1108	NRS402J-102X	MG R	1kΩ 1/10W J	*
R1109	NRS402J-103X	MG R	10kΩ 1/10W J	*
R1110	NRS402J-472X	MG R	4.7kΩ 1/10W J	*
R1111	NRS402J-821X	MG R	820Ω 1/10W J	*
R1112	NRS402J-101X	MG R	100Ω 1/10W J	*
R1113	NRS402J-102X	MG R	1kΩ 1/10W J	*
R1121-22	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
R1123	NRS402J-152X	MG R	1.5kΩ 1/10W J	*
R1124	NRS402J-821X	MG R	820Ω 1/10W J	*
R1125-27	NRS402J-103X	MG R	10kΩ 1/10W J	*
R1128	NRS402J-153X	MG R	15kΩ 1/10W J	*
R1131-33	NRS402J-102X	MG R	1kΩ 1/10W J	*
R1134	NRS402J-681X	MG R	680Ω 1/10W J	*
R1135	NRS402J-561X	MG R	560Ω 1/10W J	*
R1136	NRS402J-681X	MG R	680Ω 1/10W J	*
R1137	NRS402J-102X	MG R	1kΩ 1/10W J	*
R1138	NRS402J-391X	MG R	390Ω 1/10W J	*
R1140	NRS402J-103X	MG R	10kΩ 1/10W J	*
R1141	NRS402J-472X	MG R	4.7kΩ 1/10W J	*
R1142	NRS402J-821X	MG R	820Ω 1/10W J	*
R1151	NRS402J-222X	MG R	2.2kΩ 1/10W J	*
R1152-53	NRS402J-102X	MG R	1kΩ 1/10W J	*
R1154	NRS402J-681X	MG R	680Ω 1/10W J	*
R1155	NRS402J-561X	MG R	560Ω 1/10W J	*
R1156	NRS402J-681X	MG R	680Ω 1/10W J	*
R1157	NRS402J-102X	MG R	1kΩ 1/10W J	*
R1158	NRS402J-391X	MG R	390Ω 1/10W J	*
R1160	NRS402J-103X	MG R	10kΩ 1/10W J	*
R1161	NRS402J-472X	MG R	4.7kΩ 1/10W J	*
R1162	NRS402J-821X	MG R	820Ω 1/10W J	*
R1171	NRS402J-103X	MG R	10kΩ 1/10W J	*
R1172	NRS402J-562X	MG R	5.6kΩ 1/10W J	*
R1173	NRS402J-221X	MG R	220Ω 1/10W J	*
R1174	NRS402J-272X	MG R	2.7kΩ 1/10W J	*
R1175	NRS402J-102X	MG R	1kΩ 1/10W J	*
R1176	NRS402J-392X	MG R	3.9kΩ 1/10W J	*
R1177	NRS402J-472X	MG R	4.7kΩ 1/10W J	*
R1178	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
R1179	NRS402J-272X	MG R	2.7kΩ 1/10W J	*
R1201-02	NRS402J-103X	MG R	10kΩ 1/10W J	*
R1203	NRS402J-750X	MG R	75Ω 1/10W J	*
R1204	QRK126J-151X	C R	150Ω 1/2W J	*
R1205	NRS402J-101X	MG R	100Ω 1/10W J	*
R1206	QRG016J-101	OM R	100Ω 1W J	*
R1207	NRS402J-223X	MG R	22kΩ 1/10W J	*
R1208	NRS402J-473X	MG R	47kΩ 1/10W J	*
R1209	NRS402J-683X	MG R	68kΩ 1/10W J	*
R1210	NRS402J-153X	MG R	15kΩ 1/10W J	*
R1211	NRS402J-103X	MG R	10kΩ 1/10W J	*
R1212	NRS402J-473X	MG R	47kΩ 1/10W J	*
R1213	NRS402J-273X	MG R	27kΩ 1/10W J	*
R1214	NRS402J-103X	MG R	10kΩ 1/10W J	*
R1215	NRS402J-222X	MG R	2.2kΩ 1/10W J	*
R1216	NRS402J-333X	MG R	33kΩ 1/10W J	*
R1217	NRS402J-222X	MG R	2.2kΩ 1/10W J	*
R1218	NRS402J-333X	MG R	33kΩ 1/10W J	*
R1219	NRS402J-823X	MG R	82kΩ 1/10W J	*
R1220	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
R1221	NRS402J-391X	MG R	390Ω 1/10W J	*
R1222	NRS402J-823X	MG R	82kΩ 1/10W J	*
R1223	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
R1224	NRS402J-391X	MG R	390Ω 1/10W J	*
R1225-26	NRS402J-223X	MG R	22kΩ 1/10W J	*
R1227	NRS402J-104X	MG R	100kΩ 1/10W J	*
R1228	NRS402J-680X	MG R	68kΩ 1/10W J	*
R1229	QRK126J-181X	C R	180Ω 1/2W J	*
R1231	QRG016J-101	OM R	100Ω 1W J	*
R1232	NRS402J-101X	MG R	100Ω 1/10W J	*
R1233	NRS402J-222X	MG R	2.2kΩ 1/10W J	*
R1242	NRS402J-223X	MG R	22kΩ 1/10W J	*
R1243	NRS402J-473X	MG R	47kΩ 1/10W J	*
R1244	NRS402J-683X	MG R	68kΩ 1/10W J	*
R1245	NRS402J-153X	MG R	15kΩ 1/10W J	*
R1246	NRS402J-103X	MG R	10kΩ 1/10W J	*
R1247	NRS402J-473X	MG R	47kΩ 1/10W J	*
R1248	NRS402J-273X	MG R	27kΩ 1/10W J	*
R1249	NRS402J-103X	MG R	10kΩ 1/10W J	*
R1250	NRS402J-222X	MG R	2.2kΩ 1/10W J	*
R1251	NRS402J-333X	MG R	33kΩ 1/10W J	*
R1252	NRS402J-222X	MG R	2.2kΩ 1/10W J	*
R1253	NRS402J-333X	MG R	33kΩ 1/10W J	*
R1254	NRS402J-823X	MG R	82kΩ 1/10W J	*
R1255	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
R1256	NRS402J-391X	MG R	390Ω 1/10W J	*
R1257	NRS402J-823X	MG R	82kΩ 1/10W J	*
R1258	NRS402J-0R0X	MG R	0.0Ω 1/10W J	*
R1259	NRS402J-391X	MG R	390Ω 1/10W J	*
R1260-61	NRS402J-223X	MG R	22kΩ 1/10W J	*
R1262	NRS402J-104X	MG R	100kΩ 1/10W J	*
R1263	NRS402J-222X	MG R	2.2kΩ 1/10W J	*
R1264	NRS402J-333X	MG R	33kΩ 1/10W J	*
R1265	NRS402J-222X	MG R	2.2kΩ 1/10W J	*
R1266	NRS402J-333X	MG R	33kΩ 1/10W J	*
R1267-69	NRS402J-750X	MG R	75Ω 1/10W J	*
R1277-79	NRS402J-750X	MG R	75Ω 1/10W J	*
R1280	NRS402J-223X	MG R	22kΩ 1/10W J	*
R1281	NRS402J-473X	MG R	47kΩ 1/10W J	*
R1282	NRS402J-683X	MG R	68kΩ 1/10W J	*
R1283	NRS402J-153X	MG R	15kΩ 1/10W J	*
R1284	NRS402J-103X	MG R	10kΩ 1/10W J	*
R1285	NRS402J-473X	MG R	47kΩ 1/10W J	*
R1286	NRS402J-273X	MG R	27kΩ 1/10W J	*
R1287	NRS402J-103X	MG R	10kΩ 1/10W J	*
R1288	NRS402J-222X	MG R	2.2kΩ 1/10W J	*
R1289	NRS402J-333X	MG R	33kΩ 1/10W J	*
R1290	NRS402J-222X	MG R	2.2kΩ 1/10W J	*
R1291	NRS402J-333X	MG R	33kΩ 1/10W J	*
R1292	NRS402J-471X	MG R	470Ω 1/10W J	*
R1301	NRS402J-221X	MG R	220Ω 1/10W J	*
R1302	NRS402J-471X	MG R	470Ω 1/10W J	*
R1303	NRS402J-221X	MG R	220Ω 1/10W J	*
R1304	NRS402J-471X	MG R	470Ω 1/10W J	*
R1305	NRS402J-221X	MG R	220Ω 1/10W J	*
R1306	NRS402J-271X	MG R	270Ω 1/10W J	*
R1307	NRS402J-221X	MG R	220Ω 1/10W J	*
R1308	NRS402J-471X	MG R	470Ω 1/10W J	*

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Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R1309	NRS402J-221X	MG R	220Ω 1/10W J *	
R1310	NRS402J-471X	MG R	470Ω 1/10W J *	
R1311	NRS402J-221X	MG R	220Ω 1/10W J *	
R1312	NRS402J-771X	MG R	270Ω 1/10W J *	
R1313	NRS402J-221X	MG R	220Ω 1/10W J *	
R1314-15	NRS402J-471X	MG R	470Ω 1/10W J *	
R1316	NRS402J-152X	MG R	1.5kΩ 1/10W J *	
R1317-18	NRS402J-101X	MG R	100Ω 1/10W J *	
R1319	NRS402J-152X	MG R	1.5kΩ 1/10W J *	
R1320	NRS402J-221X	MG R	220Ω 1/10W J *	
R1321	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1323-24	NRS402J-562X	MG R	5.6kΩ 1/10W J *	
R1326-29	NRS402J-152X	MG R	1.5kΩ 1/10W J *	
R1330	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1331	NRS402J-721X	MG R	220Ω 1/10W J *	
R1332-33	NRS402J-471X	MG R	470Ω 1/10W J *	
R1334-35	NRS402J-152X	MG R	1.5kΩ 1/10W J *	
R1336	NRS402J-101X	MG R	100Ω 1/10W J *	
R1337	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1338-40	NRS402J-101X	MG R	100Ω 1/10W J *	
R1341	NRS402J-183X	MG R	18kΩ 1/10W J *	
R1342	NRS402J-823X	MG R	82kΩ 1/10W J *	
R1343-44	NRS402J-101X	MG R	100Ω 1/10W J *	
R1345-46	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1347	NRS402J-562X	MG R	5.6kΩ 1/10W J *	
R1348	NRS402J-471X	MG R	470Ω 1/10W J *	
R1349	NRS402J-152X	MG R	1.5kΩ 1/10W J *	
R1350	NRS402J-271X	MG R	270Ω 1/10W J *	
R1351	NRS402J-222X	MG R	2.2kΩ 1/10W J *	
R1372	NRS402J-274X	MG R	270kΩ 1/10W J *	
R1381	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1382	NRS402J-152X	MG R	1.5kΩ 1/10W J *	
R1383	NRS402J-822X	MG R	8.2kΩ 1/10W J *	
R1384	NRS402J-683X	MG R	68kΩ 1/10W J *	
R1385	NRS402J-102X	MG R	27kΩ 1/10W J *	
R1386	NRS402J-103X	MG R	1kΩ 1/10W J *	
R1387	NRS402J-683X	MG R	68kΩ 1/10W J *	
R1388	NRS402J-273X	MG R	27kΩ 1/10W J *	
R1389	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1390	NRS402J-683X	MG R	68kΩ 1/10W J *	
R1391	NRS402J-273X	MG R	27kΩ 1/10W J *	
R1392	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1395-97	NRS402J-080X	MG R	0.0Ω 1/10W J *	
R1398	NRS402J-101X	MG R	100Ω 1/10W J *	
R1401-02	NRS402J-682X	MG R	6.8kΩ 1/10W J *	
R1403	NRS402J-222X	MG R	2.2kΩ 1/10W J *	
R1404	QRM01GJ-1R0	MF R	1.0Ω 1W J *	
R1405	QRL029J-221	OM R	220Ω 2W J *	
R1406	NRS402J-222X	MG R	2.2kΩ 1/10W J *	
R1407	QRM01GJ-1R8	MF R	1.8Ω 1W J *	
R1408	QRM01GJ-1R5	MF R	1.5Ω 1W J *	
R1409-10	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1461	NRS402J-272X	MG R	2.7kΩ 1/10W J *	
R1462	NRS402J-563X	MG R	56kΩ 1/10W J *	
R1463	NRS402J-104X	MG R	100kΩ 1/10W J *	
R1464	NRS402J-123X	MG R	12kΩ 1/10W J *	
R1501	NRS402J-332X	MG R	3.3kΩ 1/10W J *	
R1551	NRS402J-100X	MG R	10Ω 1/10W J *	
R1552	NRS402J-124X	MG R	120kΩ 1/10W J *	
R1553	NRS402J-683X	MG R	68kΩ 1/10W J *	
R1554	NRS402J-562X	MG R	5.6kΩ 1/10W J *	
R1555	NRS402J-333X	MG R	33kΩ 1/10W J *	
R1556	NRS402J-471X	MG R	4.7kΩ 1/10W J *	
R1557	NRS402J-562X	MG R	5.6kΩ 1/10W J *	
R1558	NRS402J-104X	MG R	100kΩ 1/10W J *	
R1559	NRS402J-154X	MG R	150kΩ 1/10W J *	
R1560	NRS402J-102X	MG R	10Ω 1/10W J *	

Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R1601	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1602	NRS402J-104X	MG R	100kΩ 1/10W J *	
R1610	NRS402J-471X	MG R	470Ω 1/10W J *	
R1611	NRS402J-080X	MG R	0.0Ω 1/10W J *	
R1612	NRS402J-561X	MG R	560Ω 1/10W J *	
R1613-14	NRS402J-123X	MG R	12kΩ 1/10W J *	
R1615	NRS402J-681X	MG R	680Ω 1/10W J *	
R1616	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1617-18	NRS402J-682X	MG R	6.8kΩ 1/10W J *	
R1619-20	NRS402J-223X	MG R	22kΩ 1/10W J *	
R1659-60	QRM143J-2R2X	C R	2.2Ω 1/4W J *	
R1661	NRS402J-561X	MG R	560Ω 1/10W J *	
R1663-64	NRS402J-223X	MG R	22kΩ 1/10W J *	
R1665	NRS402J-104X	MG R	100kΩ 1/10W J *	
R1666	NRS402J-682X	MG R	6.8kΩ 1/10W J *	
R1667	NRS402J-104X	MG R	100kΩ 1/10W J *	
R1668	NRS402J-080X	MG R	0.0Ω 1/10W J *	
R1669	NRS402J-473X	MG R	47kΩ 1/10W J *	
R1670	NRS402J-080X	MG R	0.0Ω 1/10W J *	
R1671	NRS402J-273X	MG R	27kΩ 1/10W J *	
R1672	NRS402J-122X	MG R	1.2kΩ 1/10W J *	
R1673	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1674	NRS402J-563X	MG R	56kΩ 1/10W J *	
R1675	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1676	NRS402J-273X	MG R	27kΩ 1/10W J *	
R1677	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1678	NRS402J-563X	MG R	56kΩ 1/10W J *	
R1679	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1680	NRS402J-273X	MG R	27kΩ 1/10W J *	
R1682	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1683	NRS402J-562X	MG R	5.6kΩ 1/10W J *	
R1684	NRS402J-473X	MG R	47kΩ 1/10W J *	
R1689-90	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1691-92	NRS402J-123X	MG R	12kΩ 1/10W J *	
R1693-94	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1700	NRS402J-080X	MG R	0.0Ω 1/10W J *	
R1701	NRS402J-104X	MG R	100kΩ 1/10W J *	
R1702	NRS402J-823X	MG R	82kΩ 1/10W J *	
R1703-06	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1707	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1708	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1709	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1710	NRS402J-821X	MG R	820Ω 1/10W J *	
R1711	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1713-14	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1716	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1718	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1719	NRS402J-101X	MG R	100Ω 1/10W J *	
R1720	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1721-23	NRS402J-472X	MG R	4.7kΩ 1/10W J *	
R1724-26	NRS402J-821X	MG R	820Ω 1/10W J *	
R1727	NRS402J-153X	MG R	15kΩ 1/10W J *	
R1728	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1729	NRS402J-683X	MG R	68kΩ 1/10W J *	
R1730	NRS402J-223X	MG R	22kΩ 1/10W J *	
R1731	NRS402J-562X	MG R	5.6kΩ 1/10W J *	
R1732	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1733	NRS402J-222X	MG R	2.2kΩ 1/10W J *	
R1734	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1735-36	NRS402J-682X	MG R	6.8kΩ 1/10W J *	
R1738	NRS402J-183X	MG R	18kΩ 1/10W J *	
R1739	NRS402J-331X	MG R	330Ω 1/10W J *	
R1740-42	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1743	NRS402J-222X	MG R	2.2kΩ 1/10W J *	
R1744-46	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1747	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1748	NRS402J-103X	MG R	10kΩ 1/10W J *	

Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R1751-52	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1753	NRS402J-472X	MG R	4.7kΩ 1/10W J *	
R1754	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1755	NRS402J-472X	MG R	4.7kΩ 1/10W J *	
R1756-57	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1758-59	NRS402J-221X	MG R	220Ω 1/10W J *	
R1760	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1761-65	NRS402J-221X	MG R	220Ω 1/10W J *	
R1766	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1767	NRS402J-104X	MG R	100kΩ 1/10W J *	
R1768	NRS402J-823X	MG R	82kΩ 1/10W J *	
R1770	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1771	NRS402J-392X	MG R	3.9kΩ 1/10W J *	
R1772-74	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1775-76	NRS402J-563X	MG R	56kΩ 1/10W J *	
R1777	NRS402J-223X	MG R	22kΩ 1/10W J *	
R1778	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1779	NRS402J-333X	MG R	33kΩ 1/10W J *	
R1780	NRS402J-104X	MG R	100kΩ 1/10W J *	
R1791	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1793	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1794	NRS402J-152X	MG R	1.5kΩ 1/10W J *	
R1795	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1796	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1797	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1820	NRS402J-332X	MG R	3.3kΩ 1/10W J *	
R1880-82	NRS402J-102X	MG R	1kΩ 1/10W J *	
R1883	NRS402J-473X	MG R	47kΩ 1/10W J *	
R1884-86	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1888-89	NRS402J-103X	MG R	10kΩ 1/10W J *	
R1890	NRS402J-221X	MG R	220Ω 1/10W J *	
R1891	NRS402J-273X	MG R	27kΩ 1/10W J *	
R1892-96	NRS402J-221X	MG R	220Ω 1/10W J *	
R1897	QRM029J-220	OM R	22 Ω 2W J *	
R1901	NRS402J-101X	MG R	100Ω 1/10W J *	
R1902	NRS402J-223X	MG R	22kΩ 1/10W J *	
R1903	NRS402J-472X	MG R	4.7kΩ 1/10W J *	
R1904	NRS402J-223X	MG R	22kΩ 1/10W J *	
R1905	NRS402J-102X	MG R	1kΩ 1/10W J *	
CAPACITOR				
C1001	NCB21HK-104X	CHIP CAP.	0.1μF 50V K *	
C1002	QETN1HM-1072	E CAP.	100μF 50V M *	
C1003	NCB21HK-104X	CHIP CAP.	0.1μF 50V K *	
C1004	QETN1CH-1072	E CAP.	100μF 50V M *	
C1005	NCB21HK-104X	CHIP CAP.	0.1μF 50V K *	
C1006	QETN1CH-2272	E CAP.	220μF 50V M *	
C1007	NCB21HK-222X	E CAP.	2200pF 50V K *	
C1008	QETN1HM-1062	E CAP.	10μF 50V M *	
C1101-02	QETN1CH-1072	E CAP.	100μF 16V M *	
C1104	QETN1CH-4762	E CAP.	47μF 16V M *	
C1105	QENC1HM-4742	BP E CAP.	0.47μF 50V M *	
C1106	QETN1HM-1062	E CAP.	10μF 50V M *	
C1107	QETN1AM-2272	E CAP.	220μF 10V M *	
C1121-22	NCB21HK-103X	C CAP.	0.01μF 50V K *	
C1123	QETN1CH-4762	E CAP.	47μF 16V M *	
C1124-25	NCB21HK-103X	C CAP.	0.01μF 50V K *	
C1128	QETN1CH-1072	E CAP.	100μF 16V M *	
C1129	QETN1CH-4762	E CAP.	47μF 16V M *	
C1130	NCB21HK-103X	C CAP.	0.01μF 50V K *	
C1131	QETN1CH-4762	E CAP.	47μF 16V M *	
C1132	NCB21HK-103X	C CAP.	0.01μF 50V K *	
C1134	NCB21HK-103X	C CAP.	0.01μF 50V K *	
C1135	NDC21HJ-181X	C CAP.	180pF 50V J *	
C1136-39	NCB21HK-103X	C CAP.	0.01μF 50V K *	

Δ	Symbol No.	Part No.	Part Name	Description	Local
	CAPACITOR				
	C1140	QETN1CH-4762	E CAP.	47μF 16V M *	
	C1141	NCB21HK-103X	C CAP.	0.01μF 50V K *	
	C1151	QETN1AM-2272	E CAP.	220μF 10V M *	
	C1152	NCB21HK-103X	C CAP.	0.01μF 50V K *	
	C1153	QETN1AM-1072	E CAP.	100μF 10V M *	
	C1154	NDC21HJ-121X	C CAP.	120pF 50V J *	
	C1155	QETN1CH-4762	E CAP.	47μF 16V M *	
	C1161	QETN1CH-4762	E CAP.	47μF 16V M *	
	C1163	QETN1CH-4762	E CAP.	47μF 16V M *	
	C1171	NDC21HJ-221X	C CAP.	220pF 50V J *	
	C1172	NDC21HJ-560X	C CAP.	56pF 50V J *	
	C1173	NDC21HJ-221X	C CAP.	220pF 50V J *	
	C1174	NDC21HJ-121X	C CAP.	120pF 50V J *	
	C1192	QETN1CH-2272	E CAP.	220μF 16V M *	
	C1193	NCB21HK-103X	C CAP.	0.01μF 50V K *	
	C1201	QETN1CH-2272	E CAP.	220μF 16V M *	
	C1202	NCB21HK-102X	C CAP.	1000pF 50V K *	
	C1203-04	QETN1MH-1052	E CAP.	1μF 50V M *	
	C1205-06	QETN1MH-1062	E CAP.	10μF 50V M *	
	C1207	QETN1CH-2272	E CAP.	220μF 16V M *	
	C1211	NCB21HK-102X	C CAP.	1000pF 50V K *	
	C1212-13	QETN1MH-1052	E CAP.	1μF 50V M *	
	C1214-15	QETN1MH-1062	E CAP.	10μF 50V M *	
	C1216-17	QETN1MH-1052	E CAP.	1μF 50V M *	
	C1218-19	QETN1CH-4762	E CAP.	47μF 16V M *	
	C1220	QETN1MH-1052	E CAP.	1μF 50V M *	
	C1221-22	QETN1CH-1072	E CAP.	100μF 16V M *	
	C1223-24	QETN1MH-1052	E CAP.	1μF 50V M *	
	C1231-33	QETN1CH-4762	E CAP.	47μF 16V M *	
	C1234	NCB21HK-102X	C CAP.	1000pF 50V K *	
	C1301	QETN1CH-2272	E CAP.	220μF 16V M *	
	C1302	NCB21HK-104X	CHTP CAP.	0.1μF 50V K *	
	C1303	QETN1CH-4762	E CAP.	47μF 16V M *	
	C1304	QENC1CH-4762	BP E CAP.	47μF 16V M *	
	C1305	QETN1MH-2262	E CAP.	22μF 50V M *	
	C1306	NCB21HK-223X	C CAP.	0.022μF 50V K *	
	C1307-08	NCB21HK-1052	3P E CAP.	1μF 50V M *	
	C1309	NDC21HJ-390X	C CAP.	39pF 50V J *	
	C1311-13	NCB21HK-104X	CHTP CAP.	0.1μF 50V K *	
	C1314	NCB21HK-222X	C CAP.	2200pF 50V K *	
	C1315	NCB21CK-474X	C CAP.	0.47μF 16V K *	
	C1316	NCB21HK-104X	CHTP CAP.	0.1μF 50V K *	
	C1317	NCB21EK-154X	C CAP.	0.15μF 25V K *	
	C1318	NCB21HK-104X	CHTP CAP.	0.1μF 50V K *	
	C1319	NCB21HK-332X	C CAP.	3300pF 50V K *	
	C1320	NCB21HK-104X	CHTP CAP.	0.1μF 50V K *	
	C1321-22	NDC21HJ-150X	C CAP.	15pF 50V J *	
	C1323	NCB21HK-104X	CHTP CAP.	0.1μF 50V K *	
	C1325-26	NCB21HK-104X	CHTP CAP.	0.1μF 50V K *	
	C1327	QETN1CH-2272	E CAP.	220μF 16V M *	
	C1328-32	NCB21HK-104X	CHTP CAP.	0.1μF 50V K *	
	C1341	QENC1MH-1052	BP E CAP.	1μF 50V M *	
	C1342-44	NDC21HJ-220X	C CAP.	22pF 50V J *	
	C1345	NDC21HJ-121X	C CAP.	120pF 50V J *	
	C1362	NDC21HJ-330X	C CAP.	33pF 50V J *	
	C1363-65	QETN1MH-1062	E CAP.	10μF 50V M *	
	C1387-88	QETN1CH-4762	E CAP.	47μF 16V M *	
	C1389-90	QETN1MH-2282	E CAP.	2200pF 5.3V M *	
	C1392	NDC21HJ-680X	C CAP.	68pF 50V J *	
	C1396-98	NCB21HK-104X	CHTP CAP.	0.1μF 50V K *	
	C1403	QFLC2AJ-104Z	M CAP.	0.1μF 100V K *	
	C1404	NCB21HK-104X	CHTP CAP.	0.1μF 50V K *	
	C1405	NDC21HJ-820X	C CAP.	82pF 50V J *	
	C1406	QETN1MH-108	E CAP.	1000pF 35V M *	
	C1408	QETN1MH-3372	E CAP.	330pF 35V M *	
	C1409-10	QEV1HJ-447Z	MF CAP.	0.47μF 50V i *	

Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C1412	QFC24J-104Z	M CAP.	0.1uF 100V J	*
C1417-18	QETN1CH-108Z	E CAP.	1000pF 16V M	*
C1419	NCB21HK-682X	C CAP.	6800pF 50V K	*
C1461	QETN1CH-226Z	E CAP.	22uF 50V M	*
C1551-52	NCB21CK-224X	C CAP.	0.22uF 16V K	*
C1553	QETN1EM-476Z	E CAP.	47uF 25V M	*
C1554-55	NCB21CK-224X	C CAP.	0.22uF 16V K	*
C1601-02	QDC31HJ-2R0Z	C CAP.	2.0uF 50V J	*
C1603-04	NCB21HK-103X	C CAP.	0.01uF 50V K	*
C1605-06	QETN1HM-106Z	E CAP.	10uF 50V M	*
C1607-08	NCF21EZ-104X	C CAP.	0.1uF 25V Z	*
C1609-12	QETN1HM-105Z	E CAP.	1uF 50V M	*
C1613-14	NCB21HJ-471X	C CAP.	470pF 50V J	*
C1615	NCF21EZ-104X	C CAP.	0.1uF 25V Z	*
C1616-18	QETN1HM-106Z	E CAP.	10uF 50V M	*
C1619	NCF21EZ-104X	C CAP.	0.1uF 25V Z	*
C1620	QETN1HM-106Z	E CAP.	10uF 50V M	*
C1621-24	NCB21HK-102X	C CAP.	1000pF 50V K	*
C1625-26	NCB21HJ-391X	C CAP.	390pF 50V J	*
C1627-28	NCB21HK-102X	C CAP.	1000pF 50V K	*
C1629	NCB21HK-103X	C CAP.	0.01uF 50V K	*
C1630	NCF21EZ-104X	C CAP.	0.1uF 25V Z	*
C1631	QETN1CH-107Z	E CAP.	100uF 16V M	*
C1632	NCF21EZ-104X	C CAP.	0.1uF 25V Z	*
C1643	QETN1HM-105Z	E CAP.	1uF 50V M	*
C1644-45	NCB21HJ-470X	C CAP.	47pF 50V J	*
C1646	NCB21HJ-820X	C CAP.	82pF 50V J	*
C1647	NCB21HK-472X	C CAP.	4700pF 50V K	*
C1648	NCB21HJ-180X	C CAP.	180pF 50V J	*
C1652-53	QETN1HM-105Z	E CAP.	1uF 50V M	*
C1654	QETN1HM-107Z	E CAP.	100uF 50V M	*
C1655	QETN1HM-106Z	E CAP.	10uF 50V M	*
C1656-57	NCF21EZ-224X	C CAP.	0.22uF 50V Z	*
C1658	QETN1HM-228	E CAP.	2200uF 50V M	*
C1661-62	NCB21HJ-224X	C CAP.	0.22uF 50V Z	*
C1663-64	QETN1HM-108	E CAP.	1000uF 35V M	*
C1667	QETN1CH-227Z	E CAP.	220uF 16V M	*
C1668-69	QETN1HM-105Z	E CAP.	1uF 50V M	*
C1670	QETN1HM-106Z	E CAP.	10uF 50V M	*
C1671	QETN1CH-476Z	E CAP.	47uF 16V M	*
C1672	NCB21HJ-100X	C CAP.	10pF 50V J	*
C1673	QETN1HM-105Z	E CAP.	1uF 50V M	*
C1674	NCB21HJ-100X	C CAP.	10pF 50V J	*
C1675	QETN1HM-105Z	E CAP.	1uF 50V M	*
C1679	QETN1HM-106Z	E CAP.	10uF 50V M	*
C1680-81	NCB21HJ-221X	C CAP.	220pF 50V J	*
C1682	QETN1CH-227Z	E CAP.	220uF 16V M	*
C1701	NCB21HJ-471X	C CAP.	470pF 50V J	*
C1702	NCB21HK-682X	C CAP.	6800pF 50V K	*
C1703	NCB21HK-104X	CHIP CAP.	0.1uF 50V K	*
C1704	QETN1AM-107Z	E CAP.	100uF 10V M	*
C1705-06	NCB21HJ-2R0X	C CAP.	2.0uF 50V J	*
C1707	NCB21HK-104X	CHIP CAP.	0.1uF 50V K	*
C1708	NCB21HK-333X	C CAP.	0.033uF 50V K	*
C1709	NCB21HK-104X	CHIP CAP.	0.1uF 50V K	*
C1710	QETN1EM-476Z	E CAP.	47uF 25V M	*
C1711	NCB21HK-104X	CHIP CAP.	0.1uF 50V K	*
C1712	NCB21HK-333X	C CAP.	0.033uF 50V K	*
C1713	NCB21HK-104X	CHIP CAP.	0.1uF 50V K	*
C1714	QETN1HM-474Z	E CAP.	0.47uF 50V M	*
C1715	QETN1CH-476Z	E CAP.	47uF 16V M	*
C1717	QETN1HM-106Z	E CAP.	10uF 50V M	*
C1718	NCB21HJ-471X	C CAP.	470pF 50V J	*
C1719	NCF21CZ-105X	C CAP.	1uF 16V Z	*
C1720	NCB21HK-102X	C CAP.	1000pF 50V K	*
C1757	NCF21HJ-471X	C CAP.	470pF 50V J	*
C1758	QETN1AM-227Z	E CAP.	220uF 10V M	*

Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C1759	NCB21HK-104X	CHIP CAP.	0.1uF 50V K	*
C1760-61	NCB21HJ-152X	C CAP.	15pF 50V J	*
C1762	NCB21HK-104X	CHIP CAP.	0.1uF 50V K	*
C1763	QETN1CH-476Z	E CAP.	47uF 16V M	*
C1764	NCB21HK-104X	CHIP CAP.	0.1uF 50V K	*
C1766-68	NCB21HK-104X	CHIP CAP.	0.1uF 50V K	*
C1774	NCB21HJ-152X	C CAP.	150pF 50V J	*
C1780	NCB21HK-104X	CHIP CAP.	0.1uF 50V K	*
C1781	NCB21HJ-102X	C CAP.	100pF 50V J	*
C1782	NCB21HK-102X	C CAP.	1000pF 50V K	*
C1783	NCB21HJ-152X	C CAP.	150pF 50V J	*
C1784	QETN1CH-227Z	E CAP.	220uF 16V M	*
C1901	QETN1CH-107Z	E CAP.	100uF 16V M	*
C1902	QETN1HM-106Z	E CAP.	10uF 50V M	*
TRANSFORMER				
T1101	CE42697-001	LOWPASS FILTER		
T1111	CE42697-002	LOWPASS FILTER		
T1121	CE42697-003	LOWPASS FILTER		
COIL				
L1001-02	QQL01BK-8R2Z	CGIL	8.2uH	*
L1003	QQL01BK-222Z	CGIL	220uH	*
L1004	QQL01BK-5R6Z	CGIL	5.6uH	*
L1101	QRN143J-0R0X	C R	0.00 1/4W J	*
L1102-05	QQL03BJ-220Z	CGIL	22uH	*
L1111	QQL03BJ-220Z	CGIL	22uH	*
L1121	QQL03BJ-330Z	CGIL	33uH	*
L1301	QQL01BK-390Z	CGIL	39uH	*
L1302	NQL024J-5R6Y	CGIL	5.6uH	*
L1601-02	QRN143J-0R0X	C R	0.00 1/4W J	*
L1604	QQL01BJ-180Z	CGIL	18uH	*
L1605	QQL01BJ-220Z	CGIL	22uH	*
L1701	QQL01BK-4R7Z	CGIL	4.7uH	*
L1702	QQL01BK-5R6Z	CGIL	5.6uH	*
L1752	QRN143J-0R0X	C R	0.00 1/4W J	*
L1753	QQL01BK-4R7Z	CGIL	4.7uH	*
DIODE				
D1201-11	MA3130/H/-X	ZENER DIODE		*
D1214-15	MA3130/H/-X	ZENER DIODE		*
D1402	BYD33D-T3	SI. DIODE		*
D1403-04	MA3330/L/-X	ZENER DIODE		*
D1461	MA111-X	SI. DIODE		*
D1462	MA3320/M/-X	ZENER DIODE		*
D1502	MA111-X	SI. DIODE		*
D1504	MA111-X	SI. DIODE		*
D1653-54	MA3330/L/-X	ZENER DIODE		*
D1658	MA153A-X	SI. DIODE		*
D1660	MA111-X	SI. DIODE		*
D1661	MA153A-X	SI. DIODE		*
D1664-65	MA111-X	SI. DIODE		*
D1666	MA3062/M/-X	ZENER DIODE		*
D1667-68	MA3150/M/-X	ZENER DIODE		*
D1701-02	MA111-X	SI. DIODE		*
D1704	1SS244-T2	SI. DIODE		*
D1708	MA111-X	SI. DIODE		*
D1709	MA3068/M/-X	ZENER DIODE		*
D1710	MA111-X	SI. DIODE		*
D1712	MA111-X	SI. DIODE		*
D1751-53	MA111-X	SI. DIODE		*
D1754	MA3062/M/-X	ZENER DIODE		*
D1771-74	MA3056/M/-X	ZENER DIODE		*
D1901	MA3130/H/-X	ZENER DIODE		*

Symbol No.	Part No.	Part Name	Description	Local
TRANSISTOR				
Q1101-04	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q1111	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q1112	2SA1037AK/QR/-X	SI. TRANSISTOR		*
Q1113-14	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q1121	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q1122	2SA1037AK/QR/-X	SI. TRANSISTOR		*
Q1123-24	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q1131-32	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q1201-02	2SC2712/YG/-X	SI. TRANSISTOR		*
Q1203	2SC1815/YG/-T	SI. TRANSISTOR		*
Q1204-05	2SC2712/YG/-X	SI. TRANSISTOR		*
Q1206-07	DTG323TK-X	DIGI. TRANSISTOR		*
Q1208	2SA1162/YG/-X	SI. TRANSISTOR		*
Q1209	2SA1015/YG/-T	SI. TRANSISTOR		*
Q1211	2SA1162/YG/-X	SI. TRANSISTOR		*
Q1213-14	2SC2712/YG/-X	SI. TRANSISTOR		*
Q1215-16	DTG323TK-X	DIGI. TRANSISTOR		*
Q1217	2SA1162/YG/-X	SI. TRANSISTOR		*
Q1220-21	2SC2712/YG/-X	SI. TRANSISTOR		*
Q1301	2SA1162/YG/-X	SI. TRANSISTOR		*
Q1303-04	2SA1162/YG/-X	SI. TRANSISTOR		*
Q1305	2SC2712/YG/-X	SI. TRANSISTOR		*
Q1345	DTG124EKA-X	DIGI. TRANSISTOR		*
Q1346	2SC2712/YG/-X	SI. TRANSISTOR		*
Q1351	DTG124EKA-X	DIGI. TRANSISTOR		*
Q1381-83	2SC2712/YG/-X	SI. TRANSISTOR		*
Q1461-62	2SC2712/YG/-X	SI. TRANSISTOR		*
Q1601	DTG323TK-X	DIGI. TRANSISTOR		*
Q1602	2SA1162/YG/-X	SI. TRANSISTOR		*
Q1603	2SC2712/YG/-X	SI. TRANSISTOR		*
Q1655-56	DTG323TK-X	DIGI. TRANSISTOR		*
Q1657	2SC2712/YG/-X	SI. TRANSISTOR		*
Q1658-60	2SA1162/YG/-X	SI. TRANSISTOR		*
Q1701-08	2SC2712/YG/-X	SI. TRANSISTOR		*
Q1709	2SA1162/YG/-X	SI. TRANSISTOR		*
Q1752	2SA1162/YG/-X	SI. TRANSISTOR		*
Q1753	DTG124EKA-X	DIGI. TRANSISTOR		*
Q1901	2SA1162/YG/-X	SI. TRANSISTOR		*
Q1902	2SC2712/YG/-X	SI. TRANSISTOR		*
IC				
IC1101	TC9090AN	I. C. (DIGI-MOS)		*
IC1301	CXA1545AS	I. C. (MONO-ANA)		*
IC1303	TD4813/W3	I. C. (MONO-ANA)		*
IC1304	TD4665	I. C. (MONO-ANA)		*
IC1305	LA7016	I. C. (MONO-ANA)		*
IC1401	LA7841	I. C. (MONO-ANA)		*
IC1551	LA6515	I. C. (MONO-ANA)		*
IC1601	MSP34100-PB-84	I. C. (DIGI-OTHER)		*
IC1651	TAB246H	I. C. (HYBRID)		*
IC1652	BA4558F-X	I. C. (MONO-ANA)		*
IC1701	M37280MK-1015P	I. C.		*
IC1702	L78L05E-PA	I. C. (MONO-ANA)		*
IC1703	AT24C163Z4Z4EP	I. C.		*
IC1754	SDA52755	I. C. (MICRO-PROC)		*
IC1755	MSM14400D-6025	I. C. (D-RAM)		*
OTHERS				
CN1002	CEM5009-064	I. C. SOCKET		*
CN1008	CHC108N-25T-AE	FFC CONNECTOR		*
K1001	CHA4018-35P-J	HQF. PLUG		*
K1009	QRN143J-0R0X	C R	0.00 1/4W J	*
K1101	QRN143J-0R0X	C R	0.00 1/4W J	*
K1401	CE41433-001Z	BEADS CORE		*
K1701	CE41433-001Z	BEADS CORE		*

△ Symbol No.	Part No.	Part Name	Description	Local
OTHERS				
LC1101	CE42142-222Z	EMI FILTER		*
LC1601	CE42142-103Z	EMI FILTER		*
TU1001	CEEK481-A03	TUNER		*
W1001-02	NRSA02J-0R0X	MG R	0.00 1/10W J	*
X1311	CE40749-001Z	CRYSTAL		*
X1312	CE40668-001Z	CRYSTAL		*
X1601	CE42546-001Z	CRYSTAL		*
X1701	C5T8.00MTW	CER. RESONATOR		*
X1752	QAX0351-001Z	CRYSTAL		*
Y1301-06	NRSA02J-0R0X	MG R	0.00 1/10W J	*
Y1312-13	NRSA02J-0R0X	MG R	0.00 1/10W J	*
Y1314	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
Y1315-17	NRSA02J-0R0X	MG R	0.00 1/10W J	*
Y1324-26	NRSA02J-0R0X	MG R	0.00 1/10W J	*
Y1328	NRSA02J-0R0X	MG R	0.00 1/10W J	*
Y1401	NRSA02J-0R0X	MG R	0.00 1/10W J	*
Y1502-05	NRSA02J-0R0X	MG R	0.00 1/10W J	*
Y1651-52	NRSA02J-0R0X	MG R	0.00 1/10W J	*
Y1654	NRSA02J-0R0X	MG R	0.00 1/10W J	*
Y1701-03	NRSA02J-0R0X	MG R	0.00 1/10W J	*
Y1750-53	NRSA02J-0R0X	MG R	0.00 1/10W J	*

POWER / DEF PW BOARD ASS'Y (SMD-2003A-U2)				
△ Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R2451	QRE141J-272Y	C R	2.7kΩ 1/4W J	*
R2455	QRE141J-102Y	C R	1kΩ 1/4W J	*
R2456	QRE141J-473Y	C R	47kΩ 1/4W J	*
R2457	QRE141J-103Y	C R	10kΩ 1/4W J	*
R2458	QRA14CF-1002Y	MF R	10kΩ 1/4W F	*
R2459	QRE141J-391Y	C R	390Ω 1/4W J	*
R2461	QRE141J-102Y	C R	1kΩ 1/4W J	*
R2463	QRG029J-820	OM R	82 Ω 2W J	*
R2465	QRE141J-103Y	C R	10kΩ 1/4W J	*
R2501	QRE141J-471Y	C R	470Ω 1/4W J	*
R2502	QRE141J-123Y	C R	12kΩ 1/4W J	*
R2503	QRE121J-152Y	C R	1.5kΩ 1/2W J	*
R2504-05	QRG039J-27Z	OM R	2.7kΩ 3W J	*
R2506	QRE121J-5R6Y	C R	5.6Ω 1/2W J	*
R2507	QRE141J-152Y	C R	1.5kΩ 1/4W J	*
R2509	QRE141J-563Y	C R	56kΩ 1/4W J	*
R2510	QRE141J-333Y	C R	33kΩ 1/4W J	*
R2511	QRE141J-102Y	C R	1kΩ 1/4W J	*
R2522	QRE121J-471Y	C R	470Ω 1/2W J	*
△ R2551	QRZ9017-4R7	F R	4.7Ω 1/4W J	*
△ R2552	QRZ9021-1R0	FUS1. RESISTOR	1 Ω 1W J	*
△ R2553	QRZ9021-1R0	FUS1. RESISTOR	1 Ω 1W J	*
R2554	QRE141J-272Y	C R	2.7kΩ 1/4W J	*
R2555	QRE141J-822Y	C R	8.2kΩ 1/4W J	*
R2557	QRE121J-272Y	C R	2.7kΩ 1/2W J	*
R2581	QRF154K-4R7	UNF R	4.7Ω 15W K	*
R2582	QRE141J-821Y	C R	820Ω 1/4W J	*
R2583	QRE121J-682Y	C R	6.8kΩ 1/2W J	*
R2584	QRE141J-183Y	C R	18kΩ 1/4W J	*
R2585	QRE141J-222Y	C R	2.2kΩ 1/4W J	*
R2586	QRA14CF-7501Y	MF R	7.5kΩ 1/4W F	*



Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R2587	ORA14CF-2201Y	MF R	2.2kΩ 1/4W F	*
R2588	QRE141J-103Y	C R	10kΩ 1/4W J	*
R2901	QRF104K-389	UNF R	3.9kΩ 10W K	*
R2902	QRE121J-331Y	C R	330kΩ 1/2W J	*
R2903-04	QRE121J-474Y	C R	470kΩ 1/2W J	*
R2905	QRL039J-823	OM R	82kΩ 3W J	*
R2906	QRG039J-683	OM R	68kΩ 3W J	*
R2907	QRZ9017-2R2	FUS1 RESISTOR	2.2Ω 1/4W J	*
R2908	QRE121J-152Y	C R	1.5kΩ 1/2W J	*
R2909	QRT029J-R39	MF R	0.39Ω 2W J	*
R2910	QRM059J-R22	MF R	0.22Ω 5W J	*
R2911	QRE121J-681Y	C R	680Ω 1/2W J	*
R2912	QRE121J-332Y	C R	3.3kΩ 1/2W J	*
R2913	QRL039J-823	OM R	82kΩ 3W J	*
R2913	QRE121J-102Y	C R	1kΩ 1/2W J	*
R2913	QRE121J-102Y	UNF R	1kΩ 7W J	*
R2951	QRF074J-102	OM R	10kΩ 2W J	*
R2952	QRG029J-103	OM R	10kΩ 2W J	*
R2953	QRG029J-183	OM R	18kΩ 2W J	*
R2954	QRE141J-330Y	C R	33kΩ 1/4W J	*
R2955	QRE141J-681Y	C R	680Ω 1/4W J	*
R2956	QRM029J-R47	MF R	0.47Ω 2W J	*
R2957	QRG029J-100	OM R	10Ω 2W J	*
R2960	QRE141J-153Y	C R	15kΩ 1/4W J	*
R2961	QRE141J-182Y	C R	1.8kΩ 1/4W J	*
R2962	QRE141J-153Y	C R	15kΩ 1/4W J	*
R2963	QRE141J-682Y	C R	6.8kΩ 1/4W J	*
R2968	QRE141J-103Y	C R	10kΩ 1/4W J	*
R2969	QRE141J-682Y	C R	6.8kΩ 1/4W J	*
R2970	QRE141J-822Y	C R	8.2kΩ 1/4W J	*
R2971	QRE141J-682Y	C R	6.8kΩ 1/4W J	*
R2983	QRE141J-122Y	C R	1.2kΩ 1/4W J	*
R2984	QRE141J-104Y	C R	100kΩ 1/4W J	*
R2985-86	QRE141J-103Y	C R	10kΩ 1/4W J	*
R2987	QRE121J-680Y	C R	68Ω 1/2W J	*
R2991	QRZ0057-825	C R	8.2MΩ 1W J	*
<b>CAPACITOR</b>				
C2451	QCS31HJ-470Z	C CAP.	47pF 50V J	*
C2452	QFV71HJ-104Z	MF CAP.	0.1μF 50V J	*
C2453	QETN1EM-476Z	E CAP.	47μF 25V M	*
C2455	QFLC1HJ-222Z	M CAP.	2200pF 50V J	*
C2456-57	QFM72DJ-152Z	M CAP.	1500pF 200V J	*
C2458	QEZ047J-226Z	E CAP.	4.7μF 50V M	*
C2460	QFP31HJ-102Z	PP CAP.	1000pF 50V J	*
C2461	QFLC1HJ-182Z	M CAP.	1800pF 50V J	*
C2501	QCB32HK-331Z	C CAP.	330pF 500V K	*
C2502	QFM72DK-103	M CAP.	0.01μF 200V K	*
C2503	QFV71HJ-224Z	MF CAP.	0.22μF 50V J	*
C2521	QFZ012Z-112	MPP CAP.	1100pF 1.8kV ±3%	*
C2522	QFZ0117-120Z	MPP CAP.	0.012μF 1.4kV ±2.5%	*
C2523	QFM72DK-393	M CAP.	0.039μF 200V K	*
C2524	QFP32GJ-223	PP CAP.	0.022μF 400V J	*
C2525	QFZ0194-914	MPP CAP.	0.91μF 250V J	*
C2526	QFZ0194-474	MPP CAP.	0.47μF 250V J	*
C2529	QCB32HK-561Z	C CAP.	560pF 500V K	*
C2532	QETN2CM-227	E CAP.	220μF 16V M	*
C2551	QCB32HK-152Z	C CAP.	1500pF 500V K	*
C2552	QETN1CM-108Z	E CAP.	1000μF 16V M	*
C2553	QCB32HK-152Z	C CAP.	1500pF 500V K	*
C2554	QETN1CM-108Z	E CAP.	1000μF 16V M	*
C2555	QENC1HM-335Z	BP E CAP.	3.3μF 50V M	*
C2556	QCB32HK-102Z	C CAP.	1000pF 500V K	*
C2557	QETN2EM-106Z	E CAP.	10μF 250V M	*
C2581	QETN1CM-107Z	E CAP.	100μF 16V M	*
C2582	QETN1EM-476Z	E CAP.	47μF 25V M	*
C2583	QETN2AM-106Z	E CAP.	10μF 100V M	*

Symbol No.	Part No.	Part Name	Description	Local
<b>CAPACITOR</b>				
C2584	QETN1AM-227Z	E CAP.	220μF 10V M	*
C2585	QFZ0194-534	MPP CAP.	0.53μF 250V J	*
C2901	QFZ9040-473	MF CAP.	0.047μF 250V M	*
C2902	QCB2054-47Z	C CAP.	4700pF 250V Z	*
C2903	QCB2054-47Z	C CAP.	4700pF 250V Z	*
C2904	QCB2054-47Z	C CAP.	4700pF 250V Z	*
C2905	QFZ0199-227	E CAP.	220μF 400V M	*
C2906	QCB32HK-103	C CAP.	0.01μF 500V K	*
C2907	QCZ012Z-391	C CAP.	390pF 2K V	*
C2908	QETN1HM-476Z	E CAP.	47μF 50V M	*
C2909	QCB31HK-182Z	C CAP.	1800pF 50V K	*
C2910	QCZ012Z-561	C CAP.	560pF 2000V K	*
C2912	QCB31HK-561Z	C CAP.	560pF 50V K	*
C2921	QETN1EM-227Z	E CAP.	220μF 25V M	*
C2922-23	QETN1HM-106Z	E CAP.	10μF 50V M	*
C2951	QEZ0203-227	E CAP.	220μF 160V M	*
C2952	QEM1CM-228	E CAP.	2200μF 16V M	*
C2953	QEM1CM-228	E CAP.	2200μF 16V M	*
C2954	QEM1CM-228	E CAP.	2200μF 16V M	*
C2955	QEM1CM-477Z	E CAP.	470μF 16V M	*
C2956	QEM1CM-228	E CAP.	2200μF 35V M	*
C2957-58	QETN1EM-33Z	E CAP.	3300μF 25V M	*
C2959-60	QCB32HK-108	C CAP.	1000pF 500V K	*
C2967	QEM1CM-228	E CAP.	2200μF 16V M	*
C2968	QCZ0120-104Z	C CAP.	0.1μF 25V Z	*
C2970	QETN1CM-227Z	E CAP.	220μF 16V M	*
C2972-73	QEM1CM-477Z	E CAP.	470μF 10V M	*
C2974-75	QEZ0256-128	E CAP.	1200μF 10V M	*
C2976	QETN1CM-227Z	E CAP.	220μF 10V M	*
C2977	QFV71HJ-684Z	MF CAP.	0.68μF 50V J	*
C2978	QCZ012Z-471	C CAP.	470pF 2000V K	*
C2978	QCZ012Z-471	C CAP.	3300pF 250V K	*
C2991	QCZ012Z-33Z	C CAP.	3300pF 250V K	*
C2992	QCZ012Z-471	C CAP.	470pF 250V K	*
<b>TRANSFORMER</b>				
T2501	QRR0802-001	HOR. DEF. TRANSF.		*
T2521	QRR0706-001	PINC. TRANSF.		*
T2551	QETN026-008	FBT	(SERVICE)	*
T2901	CE1S129-001J4	SW TRANSF.		*
T2921	QRT0147-001	POWER TRANSF.		*
<b>COIL</b>				
L2451	QRL43AJ-33Z	CHOKE COIL		*
L2452	QRL2020-801	CHOKE COIL		*
L2522	QRR0961-002	LINEARITY COIL		*
L2551	QRL2018-560	HEATER CHOKE		*
L2901-02	QRL401K-100Z	CHOKE COIL		*
L2951	QRL2018-560	HEATER CHOKE		*
L2952-54	QRL26AK-220Z	COIL	22μH	*
L2955	QRR0518-001	CHOKE COIL		*
L2956	QRL2018-460	HEATER CHOKE		*
L2957	QRL26AK-220Z	COIL	22μH	*
<b>DIODE</b>				
D2454	BYD330-T3	SI. DIODE		*
D2501	15S81-T5	SI. DIODE		*
D2502	15S133-T2	SI. DIODE		*
D2503	MTZ1158-T2	ZENER DIODE		*
D2521	VILICA-C1	SI. DIODE		*
D2522	FMV-3FU-F1	SI. DIODE		*
D2551-52	BYM958-20	SI. DIODE		*
D2553	BYD33G-T3	SI. DIODE		*
D2554	MTZ14.7A-T2	ZENER DIODE		*

Symbol No.	Part No.	Part Name	Description	Local
<b>DIODE</b>				
D2555-56	BYD33G-T3	SI. DIODE		*
D2581	MTZ1158-T2	ZENER DIODE		*
D2582	MTZ17.5B-T2	ZENER DIODE		*
D2583	MTZ17.5S-T2	ZENER DIODE		*
D2584	BYD33G-T3	SI. DIODE		*
D2584	QCB3860	BRIDGE DIODE		*
D2902	BYD33H-T3	SI. DIODE		*
D2903	BYD33D-T3	SI. DIODE		*
D2904	BYD33D-T3	SI. DIODE		*
D2905	15S133-T2	SI. DIODE		*
D2907	MTZ1158-T2	ZENER DIODE		*
D2921-24	1M4003-T2	SI. DIODE		*
D2925	MTZ1108-T2	ZENER DIODE		*
D2951	RH40-F1	SI. DIODE		*
D2953	FMV-GL25	SI. DIODE		*
D2954	BYM958-20	SI. DIODE		*
D2955	SF6K20U	SI. DIODE		*
D2956-57	FMV-GL25	SI. DIODE		*
D2958	BYD33H-T3	SI. DIODE		*
D2959	RK44-LF74	SI. DIODE		*
D2960	MTZ1338-T2	ZENER DIODE		*
D2961-62	15S133-T2	SI. DIODE		*
D2964-66	15S133-T2	SI. DIODE		*
D2981-82	15S133-T2	SI. DIODE		*
<b>TRANSISTOR</b>				
Q2452	2SK2459N-F54	F.E.T.		*
Q2501	85N74	F.E.T.		*
Q2502	2SC1815/YG/-T	SI. TRANSISTOR		*
Q2521	2SC5552-LT	SI. TRANSISTOR	H. OUT	*
Q2581	2SA949/Y/ZL-T	SI. TRANSISTOR		*
Q2582	DTCL44ESA-T	DIOL. TRANSISTOR		*
Q2583	2SC1815/YG/-T	SI. TRANSISTOR		*
Q2921	2SC2655/Y/-T	SI. TRANSISTOR		*
Q2981-82	2SC1815/YG/-T	SI. TRANSISTOR		*
<b>IC</b>				
IC2451	BA10393	IC		*
IC2901	STR-F6668B	I C		*
IC2951	SE140M	I.C. (HYBRID)		*
IC2952	BA127	I.C. (MONO-ANA)		*
IC2953	ST-8050S	I.C. (HYBRID)		*
IC2954	BA033T	I.C. (MONO-ANA)		*
IC2955	UPC2409AHF	I.C. (MONO-ANA)		*
IC2956	BA08T	I C		*
<b>OTHERS</b>				
CP2953	ICP-W5-Y	I.C. PROTECT		*
CP2954	QMF2034-4R0Z-J1	FUSE	4A	*
CP2955	QMF2034-4R0Z-J1	FUSE	4A	*
K2521	CE4183Z-001	LEAD CORE		*
K2523-25	CE4183Z-001	LEAD CORE		*
K2901-02	CE42050-001Z	CORE		*
K2951	QK0679-001	FERRITE BEADS		*
K2952	CE41433-001Z	BEADS CORE		*
K2953	CE4183Z-001	LEAD CORE		*
PC2901	TLF721F (04-GR)	I.C. (PH. COUPLER)		*
RY2981	QK0086-001	RELAY		*
TH2901	CEK002-003	W.P. THERMISTOR		*

## CRT SOCKET PW BOARD ASS'Y (SMD-3002A-U2)

Δ	Symbol No.	Part No.	Part Name	Description	Local
RESISTOR					
	R3101	QRE141J-272Y	C R	2.7kΩ 1/4W J	*
	R3102	QRE141J-153Y	C R	15kΩ 1/4W J	*
	R3103	QRE141J-152Y	C R	1.5kΩ 1/4W J	*
	R3104	QRE141J-680Y	C R	68Ω 1/4W J	*
	R3105	QRE141J-221Y	C R	220Ω 1/4W J	*
Δ	R3106	QRJ146J-100X	C R	10Ω 1/4W J	*
	R3107-08	QRE141J-470Y	C R	47Ω 1/4W J	*
Δ	R3109	QRZ9021-561	FUS1 RESISTOR	560 Ω 1W J	*
	R3110	QRE141J-122Y	C R	1.2kΩ 1/4W J	*
	R3111	QRE141J-390Y	C R	39Ω 1/4W J	*
	R3112	QRE141J-287Y	C R	2.7Ω 1/4W J	*
	R3113-14	QRE141J-563Y	C R	56kΩ 1/4W J	*
	R3115	QRE141J-122Y	C R	1.2kΩ 1/4W J	*
	R3116	QRE141J-287Y	C R	2.7Ω 1/4W J	*
	R3117	QRE141J-390Y	C R	39Ω 1/4W J	*
	R3118	QRE141J-121Y	C R	120Ω 1/4W J	*
	R3119	QRL029J-391	OM R	390Ω 2W J	*
	R3130	QRE141J-101Y	C R	100Ω 1/4W J	*
	R3204-06	QRE141J-152Y	C R	1.5kΩ 1/4W J	*
	R3207	QRE141J-562Y	C R	5.6kΩ 1/4W J	*
	R3208	QRE141J-123Y	C R	12kΩ 1/4W J	*
	R3211	QRE141J-334Y	C R	330kΩ 1/4W J	*
	R3223-25	QRE141J-182Y	C R	1.8kΩ 1/4W J	*
	R3227	QRE141J-272Y	C R	2.7kΩ 1/4W J	*
	R3228	QRE141J-822Y	C R	8.2kΩ 1/4W J	*
	R3229-31	QRG01GJ-823	OM R	82kΩ 1W J	*
	R3232-34	QRE141J-332Y	C R	3.3kΩ 1/4W J	*
	R3235-37	QRC121K-152Z	COMP. R	1.5kΩ 1/2W K	*
	R3239	QRL0107-474Z	C R	0.47μF 1/2W K	*
	R3240	QRL0107-102Z	C R	15 Ω 1/2W K	*
	R3241	QRL0107-105Z	C R	15 Ω 1/2W K	*
	R3301-02	QRE121J-474Y	C R	470kΩ 1/2W J	*
	R3303-04	QRE141J-223Y	C R	22kΩ 1/4W J	*
	R3305	QRE141J-562Y	C R	5.6kΩ 1/4W J	*
	R3306	QRE141J-392Y	C R	3.9kΩ 1/4W J	*
	R3307	QRE141J-101Y	C R	100Ω 1/4W J	*
	R3308	QRE141J-471Y	C R	470Ω 1/4W J	*
	R3309	QRE141J-120Y	C R	12Ω 1/4W J	*
	R3310	QRE141J-331Y	C R	330Ω 1/4W J	*
	R3311-12	QRE141J-472Y	C R	4.7kΩ 1/4W J	*
	R3313	QRE141J-102Y	C R	1kΩ 1/4W J	*
CAPACITOR					
	C3101	QETN1HM-106Z	E CAP.	10μF 50V M	*
	C3103	QETN1HM-335Z	E CAP.	3.3μF 50V M	*
	C3104	QETN1CM-107Z	E CAP.	100μF 16V M	*
	C3105	QCS31HJ-101Z	C CAP.	100pF 50V J	*
	C3106	QCS31HJ-181Z	C CAP.	180pF 50V J	*
	C3107	QCS31HJ-102Z	E CAP.	10μF 160V M	*
	C3108-09	QCB32MK-472Z	C CAP.	4700pF 500V K	*
	C3110	QETN2CM-106Z	E CAP.	10μF 160V M	*
	C3111-12	QETN1AM-107Z	E CAP.	100μF 10V M	*
	C3113	QETN1AM-337Z	E CAP.	330μF 10V M	*
	C3114	QCS32HJ-470Z	C CAP.	47pF 500V J	*
	C3115	QCS31HJ-50Z	C CAP.	5.0pF 50V J	*
	C3118	QENCM1HM-106Z	BP E CAP.	10μF 50V M	*
	C3201-03	QCS31HJ-80Z	C CAP.	8.0pF 50V J	*
	C3204	QCZ0120-104Z	C CAP.	1 Ω 25V Z	*
	C3205	QCZ0120-104Z	C CAP.	1 Ω 25V Z	*
	C3206	QCZ0120-104Z	C CAP.	1 Ω 25V Z	*
	C3207-09	QETN1EM-476Z	E CAP.	47μF 25V M	*
	C3210-12	QFK62EK-104Z	MM CAP.	0.1μF 250V K	*
	C3213-15	QCS31HJ-181Z	C CAP.	180pF 50V J	*
	C3216	QETN1CM-107Z	E CAP.	100μF 16V M	*
	C3218	QETN2EM-336	E CAP.	33μF 250V M	*

Δ Symbol No.	Part No.	Part Name	Description	Local
<b>CAPACITOR</b>				
C3219	QFZ0097-223	MM. CAP.	0.022uF 1250V K	*
C3221	QETN2EM-1062	E. CAP.	10uF 250V M	*
C3301	QETN1CM-1072	E. CAP.	100uF 16V M	*
C3302	QFLC1HJ-1032	M. CAP.	0.01uF 50V J	*

<b>COIL</b>				
L3201-03	QQL01BK-4R72	COIL	4.7uH	*
L3301	QQL26AJ-1022	COIL	1uH	*

<b>DIODE</b>				
D3101-02	RH15-T3	SI. DIODE		*
D3151	15S133-T2	SI. DIODE		*
D3204-06	F001W-T2	SI. DIODE		*
D3208-10	15R124-400A-T2	SI. DIODE		*
D3301	15S252-T2	SI. DIODE		*
D3302-03	15S133-T2	SI. DIODE		*

<b>TRANSISTOR</b>				
Q3102-03	25C3311A/QR/-T	SI. TRANSISTOR		*
Q3104	25A1309A/QR/-T	SI. TRANSISTOR		*
Q3105	25A1837	SI. TRANSISTOR		*
Q3106	25C4793	SI. TRANSISTOR		*
Q3301	25A1015/YG/-T	SI. TRANSISTOR		*
Q3302	25C2655/Y/-T	SI. TRANSISTOR		*
Q3303	25A1015/YG/-T	SI. TRANSISTOR		*
Q3304-05	25C3311A/QR/-T	SI. TRANSISTOR		*

<b>IC</b>				
IC3201-03	TDA6111Q	I. C. (MONO-ANA)		*

<b>OTHERS</b>				
K3101-04	CE41492-0012	CHOKE COIL		*
K3105	CE41433-0012	BEADS CORE		*
SG3201-03	CE42447-501	ARRESTOR		*
Δ SK3001	CE42535-001J1	C. R. T. SOCKET		*

**AUDIO PW BOARD ASS'Y (SMD-6002A-U2)**  
Refer to PARTS LIST in page 46 for this P.W. board.

**FRONT CONTROL PW BOARD ASS'Y (SMD-8002A-U2)**  
Refer to PARTS LIST in page 47 for this P.W. board.

**DOLBY PW BOARD ASS'Y (SMD0D001A-U2)**  
Refer to PARTS LIST in page 47 for this P.W. board.

**IF PW BOARD ASS'Y (SMD0F001A-U2)**  
Refer to PARTS LIST in page 49 for this P.W. board.

**AV TERMINAL PW BOARD ASS'Y (SMD0J001A-U2)**  
Refer to PARTS LIST in page 51 for this P.W. board.

**SUB MICON & AUTO PANORAMA PW BOARD ASS'Y (SMD0W001A-U2)**  
Refer to PARTS LIST in page 51 for this P.W. board.

**100Hz PW BOARD ASS'Y (SMD0Z003A-U2)**

Δ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R0001-02	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0004	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
R0005	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
R0101	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0102	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0103	NRSA02J-331X	MG R	330Ω 1/10W J	*
R0104	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
R0105	NRSA02J-473X	MG R	47kΩ 1/10W J	*
R0106	NRSA02J-273X	MG R	27kΩ 1/10W J	*
R0107	NRSA02J-331X	MG R	330Ω 1/10W J	*
R0108	NRSA02J-181X	MG R	180Ω 1/10W J	*
R0109-10	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0111	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
R0112	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0113	NRSA02J-471X	MG R	470Ω 1/10W J	*
R0114	NRSA02J-222X	MG R	220Ω 1/10W J	*
R0121	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0122	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0123	NRSA02J-331X	MG R	330Ω 1/10W J	*
R0124	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
R0125	NRSA02J-473X	MG R	47kΩ 1/10W J	*
R0126	NRSA02J-273X	MG R	27kΩ 1/10W J	*
R0127	NRSA02J-271X	MG R	270Ω 1/10W J	*
R0128	NRSA02J-181X	MG R	180Ω 1/10W J	*
R0129	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0130	NRSA02J-330X	MG R	33Ω 1/10W J	*
R0131	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
R0132	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0133	NRSA02J-471X	MG R	470Ω 1/10W J	*
R0134	NRSA02J-221X	MG R	220Ω 1/10W J	*
R0141	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0142	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0143	NRSA02J-331X	MG R	330Ω 1/10W J	*
R0144	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
R0145	NRSA02J-473X	MG R	47kΩ 1/10W J	*
R0146	NRSA02J-273X	MG R	27kΩ 1/10W J	*
R0147	NRSA02J-271X	MG R	270Ω 1/10W J	*
R0148	NRSA02J-181X	MG R	180Ω 1/10W J	*
R0149	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0150	NRSA02J-150X	MG R	15Ω 1/10W J	*
R0151	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
R0152	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0153	NRSA02J-471X	MG R	470Ω 1/10W J	*
R0154	NRSA02J-221X	MG R	220Ω 1/10W J	*
R0155	NRSA02J-100X	MG R	10Ω 1/10W J	*
R0156	NRSA02J-122X	MG R	1.2kΩ 1/10W J	*
R0157	NRSA02J-560X	MG R	56Ω 1/10W J	*
R0158	NRSA02J-680X	MG R	68Ω 1/10W J	*
R0159	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0160	NRSA02J-333X	MG R	33kΩ 1/10W J	*
R0161	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R0162	NRSA02J-122X	MG R	1.2kΩ 1/10W J	*
R0163	NRSA02J-181X	MG R	180Ω 1/10W J	*
R0164	NRSA02J-680X	MG R	68Ω 1/10W J	*
R0165	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R0171	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0172	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0173	NRSA02J-182X	MG R	1.8kΩ 1/10W J	*
R0174	NRSA02J-560X	MG R	56Ω 1/10W J	*
R0175	NRSA02J-105X	MG R	10Ω 1/10W J	*
R0176	NRSA02J-681X	MG R	680Ω 1/10W J	*
R0177	NRSA02J-104X	MG R	100kΩ 1/10W J	*
R0178	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0179	NRSA02J-471X	MG R	470Ω 1/10W J	*
R0180	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0181-82	NRSA02F-392X	MG R	3.9kΩ 1/10W F	*

Δ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R0183-84	NRSA02J-122X	MG R	1.2kΩ 1/10W J	*
R0185	NRSA02F-392X	MG R	3.9kΩ 1/10W F	*
R0186	NRSA02F-332X	MG R	3.3kΩ 1/10W F	*
R0187	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0188	NRSA02J-563X	MG R	56kΩ 1/10W J	*
R0189	NRSA02J-470X	MG R	47Ω 1/10W J	*
R0190	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0191	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R0192	NRSA02J-220X	MG R	22Ω 1/10W J	*
R0193	NRSA02J-104X	MG R	100kΩ 1/10W J	*
R0201-16	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0221-36	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0303-18	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0401	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R0403	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R0404	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
R0406	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0408	NRSA02J-561X	MG R	560Ω 1/10W J	*
R0409	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0411	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R0412	NRSA02J-561X	MG R	560Ω 1/10W J	*
R0413	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0415	NRSA02J-151X	MG R	150Ω 1/10W J	*
R0417	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0418	NRSA02J-220X	MG R	22Ω 1/10W J	*
R0419	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0420	NRSA02J-471X	MG R	470Ω 1/10W J	*
R0425	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R0426	NRSA02J-122X	MG R	1.2kΩ 1/10W J	*
R0428	NRSA02F-472X	MG R	4.7kΩ 1/10W F	*
R0429	NRSA02F-333X	MG R	33kΩ 1/10W F	*
R0431	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R0432	NRSA02J-561X	MG R	560Ω 1/10W J	*
R0433	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0435	NRSA02J-151X	MG R	150Ω 1/10W J	*
R0437	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0438	NRSA02J-220X	MG R	22Ω 1/10W J	*
R0439	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0440	NRSA02J-471X	MG R	470Ω 1/10W J	*
R0441	NRSA02J-122X	MG R	1.2kΩ 1/10W J	*
R0442	NRSA02F-472X	MG R	4.7kΩ 1/10W F	*
R0443	NRSA02F-333X	MG R	33kΩ 1/10W F	*
R0451	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R0452	NRSA02J-561X	MG R	560Ω 1/10W J	*
R0453	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0455	NRSA02J-151X	MG R	150Ω 1/10W J	*
R0457	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0458	NRSA02J-220X	MG R	22Ω 1/10W J	*
R0459	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0460	NRSA02J-471X	MG R	470Ω 1/10W J	*
R0461	NRSA02J-122X	MG R	1.2kΩ 1/10W J	*
R0462	NRSA02F-472X	MG R	4.7kΩ 1/10W F	*
R0463	NRSA02F-333X	MG R	33kΩ 1/10W F	*
R0471	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R0472	NRSA02J-391X	MG R	390Ω 1/10W J	*
R0473	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0475	NRSA02J-330X	MG R	33Ω 1/10W J	*
R0476	NRSA02J-122X	MG R	1.2kΩ 1/10W J	*
R0477	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0478	NRSA02J-220X	MG R	22Ω 1/10W J	*
R0479	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0480	NRSA02J-221X	MG R	220Ω 1/10W J	*
R0486	NRSA02J-683X	MG R	68kΩ 1/10W J	*
R0487	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R0488	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R0489	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*

AV-28WZ4EP  
AV-28WZ4EPS

Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R0491-92	NRS402J-102X	MG R	1kΩ 1/10W J *	
R0501	NRS402J-563X	MG R	56kΩ 1/10W J *	
R0504	NRS402J-472X	MG R	4.7kΩ 1/10W J *	
R0505	NRS402J-272X	MG R	2.7kΩ 1/10W J *	
R0506	NRS402J-472X	MG R	4.7kΩ 1/10W J *	
R0507	NRS402J-080X	MG R	0.0Ω 1/10W J *	
R0512	NRS402J-103X	MG R	10kΩ 1/10W J *	
R0514-15	NRS402J-682X	MG R	6.8kΩ 1/10W J *	
R0516	NRS402J-080X	MG R	0.0Ω 1/10W J *	
R0602-03	NRS402J-680X	MG R	68Ω 1/10W J *	
R0604	QW143J-221X	C R	22Ω 1/4W J *	
R0606	NRS402J-680X	MG R	68Ω 1/10W J *	
R0607-08	NRS402J-080X	MG R	0.0Ω 1/10W J *	
R0609	NRS402J-100X	MG R	10Ω 1/10W J *	
R0610	NRS402J-080X	MG R	0.0Ω 1/10W J *	
R0611	NRS402J-100X	MG R	10Ω 1/10W J *	
R0612-13	NRS402J-560X	MG R	56Ω 1/10W J *	
R0614	NRS402J-100X	MG R	10Ω 1/10W J *	
R0615	NRS402J-822X	MG R	8.2kΩ 1/10W J *	
R0616	NRS402J-223X	MG R	22kΩ 1/10W J *	
R0704	NRS402J-080X	MG R	0.0Ω 1/10W J *	
R0705-06	NRS402J-123X	MG R	12kΩ 1/10W J *	
R0708	NRS402J-123X	MG R	12kΩ 1/10W J *	
R0709	NRS402J-103X	MG R	10kΩ 1/10W J *	
R0714	NRS402J-123X	MG R	12kΩ 1/10W J *	
R0715	NRS402J-333X	MG R	33kΩ 1/10W J *	
R0716	NRS402J-153X	MG R	15kΩ 1/10W J *	
R0717	NRS402J-123X	MG R	12kΩ 1/10W J *	
R0718	NRS402J-153X	MG R	15kΩ 1/10W J *	
R0719	NRS402J-472X	MG R	4.7kΩ 1/10W J *	
R0720	NRS402J-333X	MG R	33kΩ 1/10W J *	
R0721	NRS402J-123X	MG R	12kΩ 1/10W J *	
R0723	NRS402J-682X	MG R	6.8kΩ 1/10W J *	
R0724	NRS402J-272X	MG R	2.7kΩ 1/10W J *	
R0726	NRS402J-563X	MG R	56kΩ 1/10W J *	
R0727	NRS402J-224X	MG R	22kΩ 1/10W J *	
R0731	NRS402J-080X	MG R	0.0Ω 1/10W J *	
R0733	NRS402J-154X	MG R	15kΩ 1/10W J *	
R0734	NRS402J-123X	MG R	12kΩ 1/10W J *	
R0736	NRS402J-123X	MG R	12kΩ 1/10W J *	
R0737	NRS402J-224X	MG R	22kΩ 1/10W J *	
R0738	NRS402J-273X	MG R	27kΩ 1/10W J *	
R0739	NRS402J-562X	MG R	5.6kΩ 1/10W J *	
R0740	NRS402J-682X	MG R	6.8kΩ 1/10W J *	
R0741	NRS402J-223X	MG R	22kΩ 1/10W J *	
R0742	NRS402J-224X	MG R	22kΩ 1/10W J *	
R0743	NRS402J-683X	MG R	68kΩ 1/10W J *	
R0744	NRS402J-224X	MG R	22kΩ 1/10W J *	
R0745-46	NRS402J-563X	MG R	56kΩ 1/10W J *	
CAPACITOR				
C0001	NEH71CH-476X	E CAP.	47μF 16V M *	
C0002	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0003	NEH71CH-476X	E CAP.	47μF 16V M *	
C0004	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0005	NEH71CH-476X	E CAP.	47μF 16V M *	
C0006	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0007	NEH71CH-476X	E CAP.	47μF 16V M *	
C0008	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0009	NDC21HJ-121X	C CAP.	120pF 50V J *	
C0011	NDC21HJ-270X	C CAP.	27pF 50V J *	
C0102	NDC21HJ-121X	C CAP.	120pF 50V J *	
C0103	NDC21HJ-680X	C CAP.	68pF 50V J *	
C0104	NEWS1EH-106X	CHIP AL BP E CAP	10pF 25V M *	
C0105	MCF21EZ-224X	C CAP.	0.22μF 50V Z *	
C0106	MCF21EZ-102X	C CAP.	0.1μF 25V Z *	

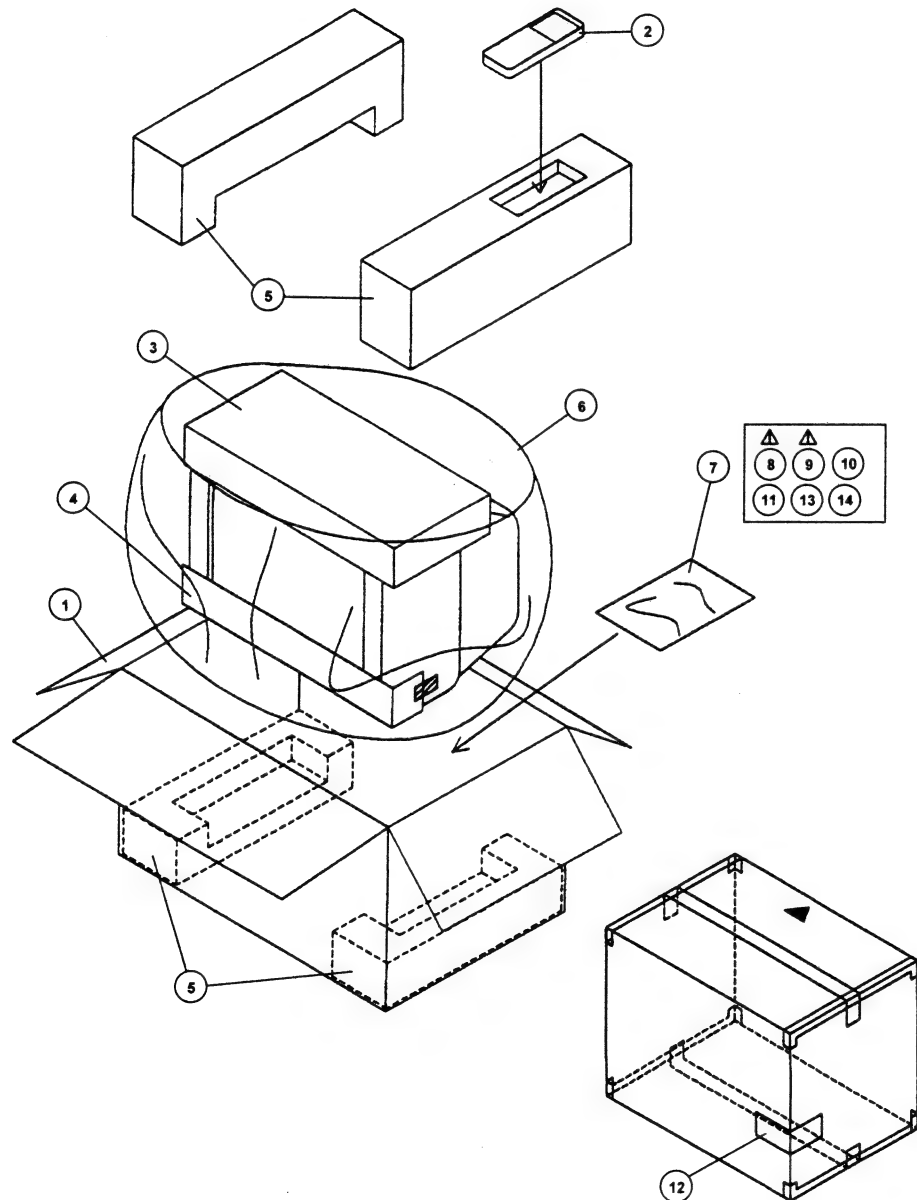
Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C0107	NDC21HJ-390X	C CAP.	39pF 50V J *	
C0108	NEH71CH-476X	E CAP.	47μF 16V M *	
C0109	NEWS1EH-105X	CHIP AL BP E CAP	1μF 50V M *	
C0110	NDC21HJ-103X	C CAP.	0.01μF 50V K *	
C0111	NDC21HJ-181X	C CAP.	180pF 50V J *	
C0112-14	NEH71CH-106X	E CAP.	10pF 16V M *	
C0122	NDC21HJ-121X	C CAP.	120pF 50V J *	
C0123	NDC21HJ-680X	C CAP.	68pF 50V J *	
C0124	NEWS1EH-105X	CHIP AL BP E CAP	1μF 50V M *	
C0125	MCF21EZ-224X	C CAP.	0.22μF 50V Z *	
C0126	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0142	NDC21HJ-121X	C CAP.	120pF 50V J *	
C0143	NDC21HJ-680X	C CAP.	68pF 50V J *	
C0144	NEWS1EH-105X	CHIP AL BP E CAP	1μF 50V M *	
C0145	MCF21EZ-224X	C CAP.	0.22μF 50V Z *	
C0146	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0151	NDC21HJ-103X	C CAP.	0.01μF 50V K *	
C0152	QETNOJM-228Z	E CAP.	2200pF 6.3V M *	
C0153	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0154-55	NEH71HM-105X	E CAP.	1μF 50V M *	
C0156-57	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0161-62	NEH71CH-106X	E CAP.	10pF 16V M *	
C0163	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0164	NEH71CH-106X	E CAP.	10pF 16V M *	
C0165-80	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0181-82	NDC21HJ-800X	C CAP.	8.0pF 50V J *	
C0191	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0192	NEH71CH-106X	E CAP.	10pF 16V M *	
C0193	NDC21HJ-103X	C CAP.	0.01μF 50V K *	
C0201-02	QETNOJM-477Z	E CAP.	470pF 6.3V M *	
C0203-07	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0208-09	NDC21HJ-150X	C CAP.	15pF 50V J *	
C0301-19	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0401	NEH71CH-106X	E CAP.	10pF 16V M *	
C0402	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0403	NEH71CH-106X	E CAP.	10pF 16V M *	
C0404	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0405-06	NDC21HJ-120X	C CAP.	12pF 50V J *	
C0408-13	NDC21HJ-103X	C CAP.	0.01μF 50V K *	
C0414	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0415	NEH71HM-105X	E CAP.	1μF 50V M *	
C0416	NEH71CH-106X	E CAP.	10pF 16V M *	
C0417	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0420	NEH71HM-105X	E CAP.	1μF 50V M *	
C0422	NRS402J-080X	MG R	0.0Ω 1/10W J *	
C0424	NEH71HM-105X	E CAP.	1μF 50V M *	
C0425	NEH71CH-476X	E CAP.	47μF 16V M *	
C0426	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0432	NRS402J-080X	MG R	0.0Ω 1/10W J *	
C0434	NEH71HM-105X	E CAP.	1μF 50V M *	
C0435	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0452	NRS402J-080X	MG R	0.0Ω 1/10W J *	
C0454	NEH71HM-105X	E CAP.	1μF 50V M *	
C0455	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0472	NRS402J-080X	MG R	0.0Ω 1/10W J *	
C0474	NEH71HM-105X	E CAP.	1μF 50V M *	
C0475-76	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0477	NDC21HJ-561X	C CAP.	560pF 50V J *	
C0501	NDC21HJ-333X	C CAP.	0.033μF 50V K *	
C0504	NDC21HJ-562X	C CAP.	5600pF 50V K *	
C0505-06	NDC21HJ-393X	C CAP.	0.039μF 50V K *	
C0507	NDC21HJ-101X	C CAP.	100pF 50V J *	
C0601	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0602	NEH71CH-476X	E CAP.	47μF 16V M *	
C0603	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0605	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0606	NDC21HJ-681X	C CAP.	680pF 50V J *	
C0701	NDC21HJ-102X	C CAP.	1000pF 50V K *	

Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C0706	NDC21EK-154X	C CAP.	0.15μF 25V K *	
C0707	NDC21EK-104X	C CAP.	0.1μF 25V K *	
C0708	NDC21EK-103X	C CAP.	0.01μF 50V K *	
C0709	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0710	NEH71CH-106X	E CAP.	10pF 16V M *	
C0711	MCF21EZ-104X	C CAP.	0.1μF 25V Z *	
C0712	NEH71CH-106X	E CAP.	10pF 16V M *	
C0713	NDC21EK-473X	C CAP.	0.047μF 50V K *	
COIL				
L0001-05	NQLO2BJ-4R7X	COIL	4.7μH *	
L0101	NQLO11K-3R3X	COIL	3.3μH *	
L0121	NQLO11K-3R3X	COIL	3.3μH *	
L0141	NQLO11K-3R3X	COIL	3.3μH *	
L0161	NQLO2BJ-100X	COIL	10μH *	
L0162	NQLO2BJ-3R3X	COIL	3.3μH *	
L0163-64	NQLO2BJ-100X	COIL	10μH *	
L0201-02	NQLO2BJ-100X	COIL	10μH *	
L0301-02	NQLO2BJ-4R7X	COIL	4.7μH *	
DIODE				
D0001	MA12MK-X	ST. DIODE		
D0011-02	MA306M/M-X	ZENER DIODE		
D0103	MA3043-X	ZENER DIODE		
D0104-05	MA111-X	ST. DIODE		
D0106	MA306M/M-X	ZENER DIODE		
D0107	MA111-X	ST. DIODE		
D0401	MA111-X	ST. DIODE		
D0403-10	MA306M/M-X	ZENER DIODE		
D0411-13	MA111-X	ST. DIODE		
D0414	MA306M/M-X	ZENER DIODE		
D0701	MA111-X	ST. DIODE		
TRANSISTOR				
Q0101	2SA1162/YG/-X	SI. TRANSISTOR		
Q0102	2SC2712/YG/-X	SI. TRANSISTOR		
Q0103	2SA1162/YG/-X	SI. TRANSISTOR		
Q0104	2SC2712/YG/-X	SI. TRANSISTOR		
Q0105	2SA1162/YG/-X	SI. TRANSISTOR		
Q0106-07	2SC2712/YG/-X	SI. TRANSISTOR		
Q0108	2SA1162/YG/-X	SI. TRANSISTOR		
Q0109-10	2SC2712/YG/-X	SI. TRANSISTOR		
Q0111	2SA1162/YG/-X	SI. TRANSISTOR		
Q0121	2SA1162/YG/-X	SI. TRANSISTOR		
Q0122	2SC2712/YG/-X	SI. TRANSISTOR		
Q0123	2SA1162/YG/-X	SI. TRANSISTOR		
Q0124	2SC2712/YG/-X	SI. TRANSISTOR		
Q0141	2SA1162/YG/-X	SI. TRANSISTOR		
Q0142	2SC2712/YG/-X	SI. TRANSISTOR		
Q0143	2SA1162/YG/-X	SI. TRANSISTOR		
Q0144	2SC2712/YG/-X	SI. TRANSISTOR		
Q0151-52	2SC2712/YG/-X	SI. TRANSISTOR		
Q0153	2SA1162/YG/-X	SI. TRANSISTOR		
Q0154	2SC2712/YG/-X	SI. TRANSISTOR		
Q0155	2SA1162/YG/-X	SI. TRANSISTOR		
Q0402	2SC2712/YG/-X	SI. TRANSISTOR		
Q0403-05	2SA1162/YG/-X	SI. TRANSISTOR		
Q0411	2SA1162/YG/-X	SI. TRANSISTOR		
Q0412-15	2SC2712/YG/-X	SI. TRANSISTOR		
Q0431	2SA1162/YG/-X	SI. TRANSISTOR		
Q0432-35	2SC2712/YG/-X	SI. TRANSISTOR		
Q0451	2SA1162/YG/-X	SI. TRANSISTOR		
Q0452-55	2SC2712/YG/-X	SI. TRANSISTOR		

Symbol No.	Part No.	Part Name	Description	Local
TRANSISTOR				
Q0471	2SA1162/YG/-X	SI. TRANSISTOR		
Q0472-74	2SC2712/YG/-X	SI. TRANSISTOR		
Q0501	2SC2712/YG/-X	SI. TRANSISTOR		
Q0601	2SC2712/YG/-X	SI. TRANSISTOR		
Q0702	2SC2712/YG/-X	SI. TRANSISTOR		
IC				
IC0101	SDA9206	I C		
IC0102	TC4M66F-X	I C. (DIGI-MOS)		
IC0201	SDA9400	I C		
IC0301	JCS5043	I C		
IC0401	DDP3310B/D3-X	I C		
IC0601	SN74LV04ANS-X	I C		
IC0602	TC74AC00F-X	I C. (DIGI-MOS)		
IC0603	MM1382/D/-X	I C. (MONO-ANA)		
IC0701-02	NJM4556AM-XE	I C		
OTHERS				
LC0001-04	CE42482-103Y	EMI FILTER		
LC0101-03	CE42482-470Y	EMI FILTER		
LC0104	CE42126-101Y	EMI FILTER		
LC0201	CE42482-103Y	EMI FILTER		
LC0401-11	CE42126-220Y	EMI FILTER		
LC0601	CE42126-101Y	EMI FILTER		
LC0602	CE42482-470Y	EMI FILTER		
LC0603	CE42126-101Y	EMI FILTER		
X0101	QX0549-001Z	X TAL		
X0201	QX0359-001Z	CRYSTAL		
X0401	QX0548-001Z	X TAL		
Y0001-14	NRS402J-080X	MG R	0.0Ω 1/10W J *	
Y0017-28	NRS402J-080X	MG R	0.0Ω 1/10W J *	

AV-32WZ4EP / AV-28WZ4EP / AV-28WZ4EPS

PACKING



PACKING PARTS LIST

AV-32WZ4EP

Ref. No.	Part No.	Part Name	Description	Local
1	AEM1002-C43-E	PACKING CASE		*
2	RM-C793-1E	REMOCON UNIT		*
3	AEM3022-003-E	CUSHION SHEET		*
4	AEM3022-004-E	CUSHION SHEET		*
5	CP11549-B08-E	PACKING CUSHION	4pcs in 1set	*
6	AEM1004-A07-E	SET COVER		*
7	AEM3021-001-E	POLY BAG		*
8	LCT0341-001A-U	INST BOOK	For ENG/GER/FRA/NED/ITA/ESP	*
9	LCT0342-001A-U	INST BOOK	For FIN/NOR/DEN/SWE/POR	*
10	AEM1043-001-E	X-RAY CARD		*
11	2832WZ4EPS-HSAE	S. DIAGRAM	ONLY ITALY (SERVICE)	*
12	AEM1038-085-E	EURO LABEL	(1295)	*
13	BT-20066A-E	ADDRESS CARD		*
14	BT-54013-1E	WARRANTY CARD		*

AV-28WZ4EP

Ref. No.	Part No.	Part Name	Description	Local
1	AEM1002-067-E	PACKING CASE		*
2	RM-C793-1E	REMOCON UNIT		*
3	CP40193-009-E	CUSHION SHEET		*
4	CP40193-010-E	CUSHION SHEET		*
5	LC10522-002A-U	PACKING CUSHION	4pcs in 1set	*
6	AEM1004-A06-E	SET COVER		*
7	AEM3021-001-E	POLY BAG		*
8	LCT0341-001A-U	INST BOOK	For ENG/GER/FRA/NED/ITA/ESP	*
9	LCT0342-001A-U	INST BOOK	For FIN/NOR/DEN/SWE/POR	*
10	AEM1042-001-E	X-RAY CARD		*
11	2832WZ4EPS-HSAE	S. DIAGRAM	ONLY ITALY (SERVICE)	*
12	AEM1039-040-E	EURO LABEL		*
13	BT-20066A-E	ADDRESS CARD	(1295)	*
14	BT-54013-1E	WARRANTY CARD		*

AV-28WZ4EPS

Ref. No.	Part No.	Part Name	Description	Local
1	AEM1002-067-E	PACKING CASE		*
2	RM-C793-1E	REMOCON UNIT		*
3	CP40193-009-E	CUSHION SHEET		*
4	CP40193-010-E	CUSHION SHEET		*
5	LC10522-002A-U	PACKING CUSHION	4pcs in 1set	*
6	AEM1004-A06-E	SET COVER		*
7	AEM3021-001-E	POLY BAG		*
8	LCT0341-001A-U	INST BOOK	For ENG/GER/FRA/NED/ITA/ESP	*
9	LCT0342-001A-U	INST BOOK	For FIN/NOR/DEN/SWE/POR	*
10	AEM1042-001-E	X-RAY CARD		*
11	2832WZ4EPS-HSAE	S. DIAGRAM	ONLY ITALY (SERVICE)	*
12	AEM1039-040-E	EURO LABEL		*
13	BT-20066A-E	ADDRESS CARD	(1295)	*
14	BT-54013-1E	WARRANTY CARD		*

# AV-32WZ4EP AV-28WZ4EP AV-28WZ4EPS STANDARD CIRCUIT DIAGRAM

AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS

## NOTE ON USING CIRCUIT DIAGRAMS

### 1. SAFETY

The components identified by the  $\Delta$  symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

### 2. SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

- (1) Input signal : PAL Colour bar signal
- (2) Setting positions of each knob/button and variable resistor : Original setting position when shipped
- (3) Internal resistance of tester : DC 20k  $\Omega$ /V
- (4) Oscilloscope sweeping time : H  $\Rightarrow$  20 $\mu$ S/div  
: V  $\Rightarrow$  5mS/div  
: Others  $\Rightarrow$  Sweeping time is specified
- (5) Voltage values : All DC voltage values

\* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

### 3. INDICATION OF PARTS SYMBOL [EXAMPLE]

- In the PW board : R1209  $\rightarrow$  R209

### 4. INDICATIONS ON THE CIRCUIT DIAGRAM

#### (1) Resistors

##### ● Resistance value

- No unit : [ $\Omega$ ]
- K : [K  $\Omega$ ]
- M : [M  $\Omega$ ]

##### ● Rated allowable power

- No indication : 1/10[W]
- Others : As specified

##### ● Type

- No indication : Carbon resistor
- OMR : Oxide metal film resistor
- MFR : Metal film resistor
- MPR : Metal plate resistor
- UNFR : Uninflamable resistor
- FR : Fusible resistor

\* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

#### (2) Capacitors

##### ● Capacitance value

- 1 or higher : [pF]
- less than 1 : [ $\mu$ F]

##### ● Withstand voltage

- No indication : DC50[V]
- AC indicated : AC withstand voltage [V]
- Others : DC withstand voltage [V]

##### \* Electrolytic Capacitors

47/50[Example]: Capacitance value [ $\mu$ F]/withstand voltage[V]

#### ● Type

- No indication : Ceramic capacitor
- MY : Mylar capacitor
- MM : Metalized mylar capacitor
- PP : Polypropylene capacitor
- MPP : Metalized polypropylene capacitor
- MF : Metalized film capacitor
- TF : Thin film capacitor
- BP : Bipolar electrolytic capacitor
- TAN : Tantalum capacitor

#### (3) Coils

- No unit : [ $\mu$ H]
- Others : As specified

#### (4) Power Supply

- B1
- B2
- 9V
- 5V

\* Respective voltage values are indicated

#### (5) Test point

- : Test point
- : Only test point display

#### (6) Connecting method

- : Connector
- : Wrapping or soldering
- : Receptacle

#### (7) Ground symbol

- ⊥ : LIVE side ground
- ⋈ : ISOLATED(NEUTRAL) side ground
- ⊕ : EARTH ground
- ⏚ : DIGITAL ground

## 5. NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⋈) side GND. Therefore, care must be taken for the following points.

- (1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2) Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

◇ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS

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## SEMICONDUCTOR SHAPES

### TRANSISTOR

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				CHIP TR 

### IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW

### CHIP IC

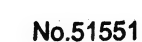
TOP VIEW	

AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS

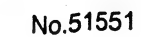


SMD-1002A-U2... AV-32WZ4EP  
SMD-1003A-U2... AV-28WZ4EP/EPS

AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS



FOR ADJ.



SMD-1002A-U2... AV-32WZ4EP  
SMD-1003A-U2... AV-28WZ4EP/EPS



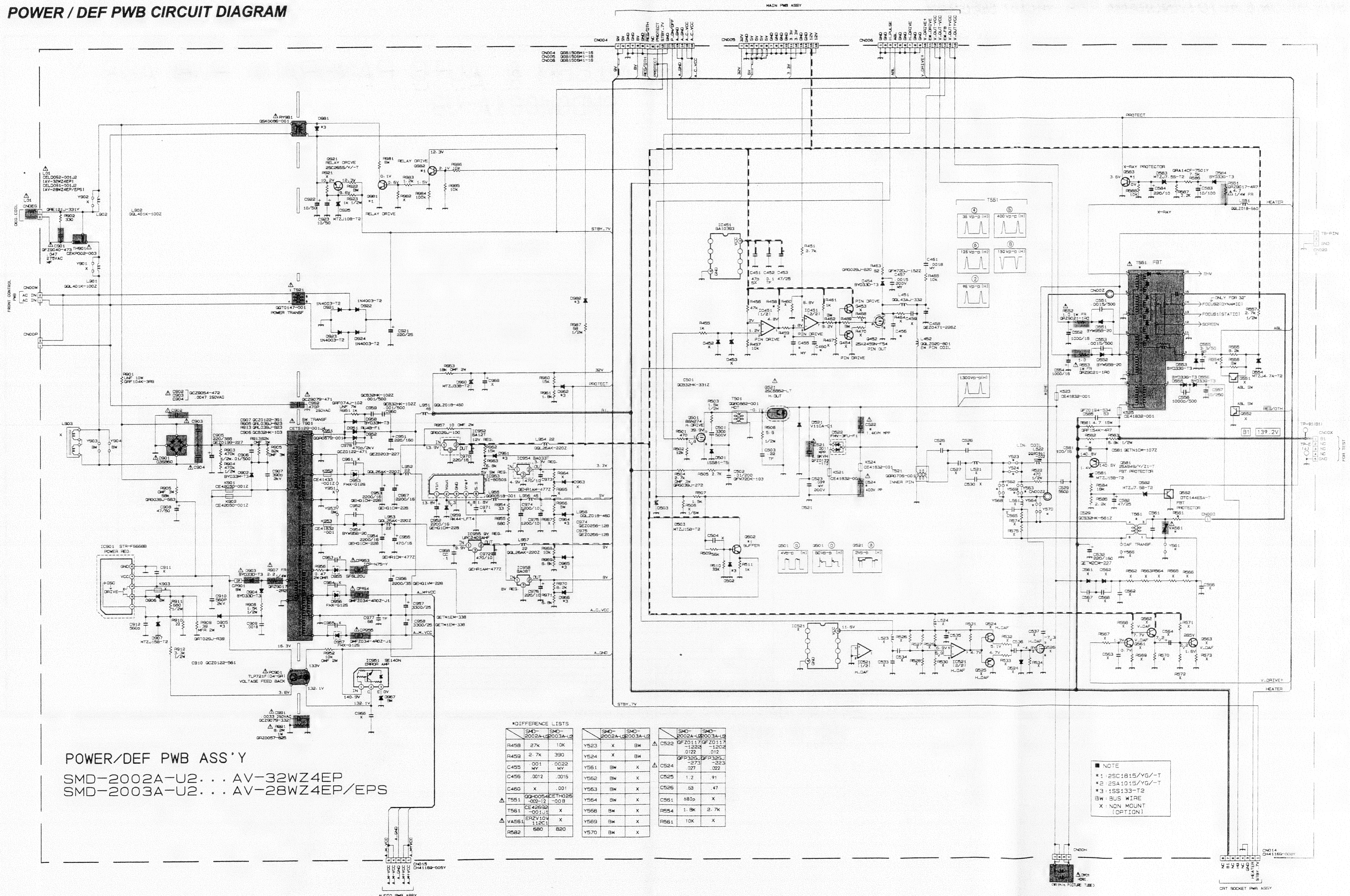




AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS

AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS

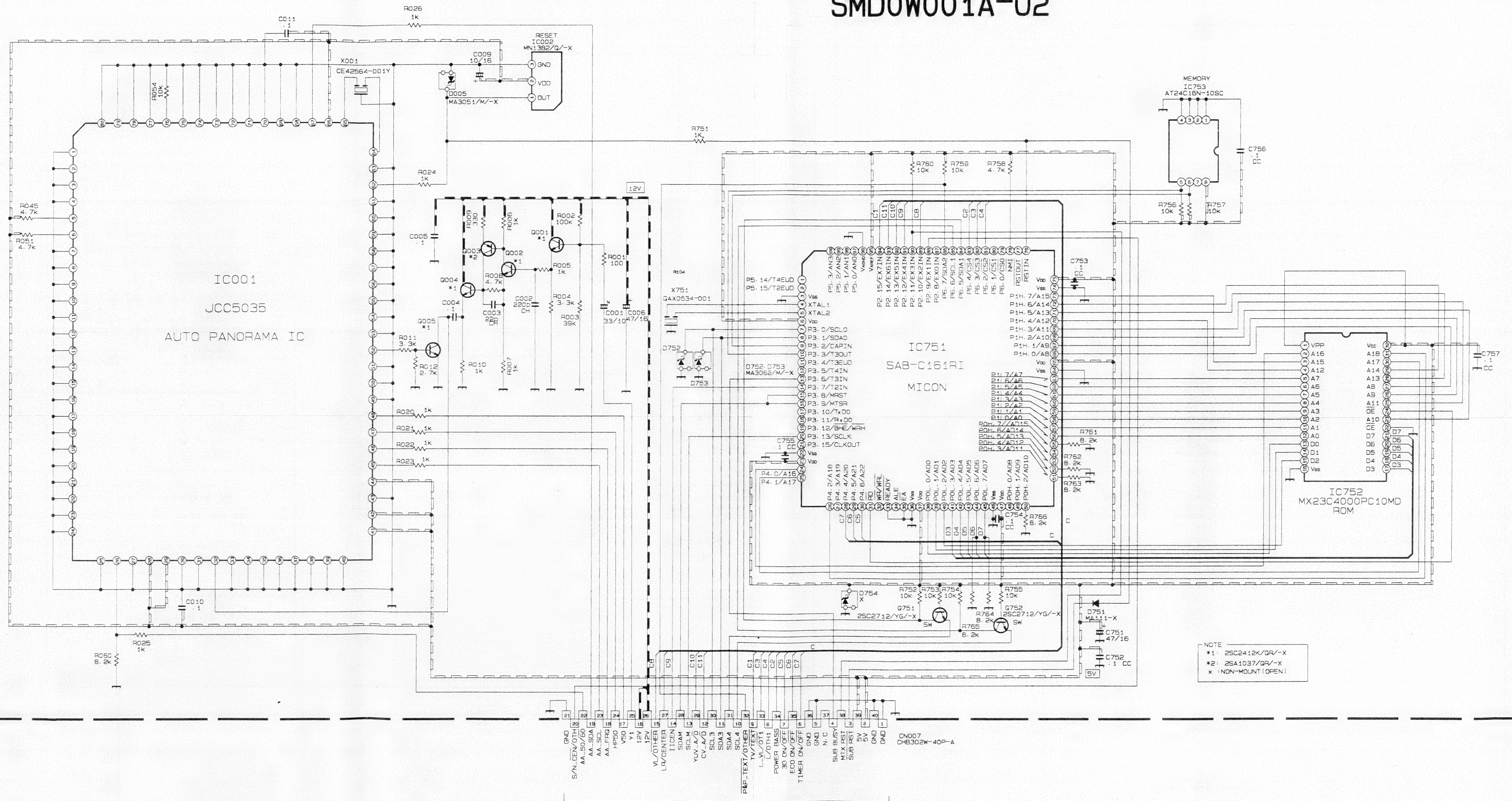
# POWER / DEF PWB CIRCUIT DIAGRAM





SUB MICON & AUTO PANORAMA PWB CIRCUIT DIAGRAM

SUB MICON & AUTO PANORAMA PWB ASS'Y  
SMD0W001A-U2



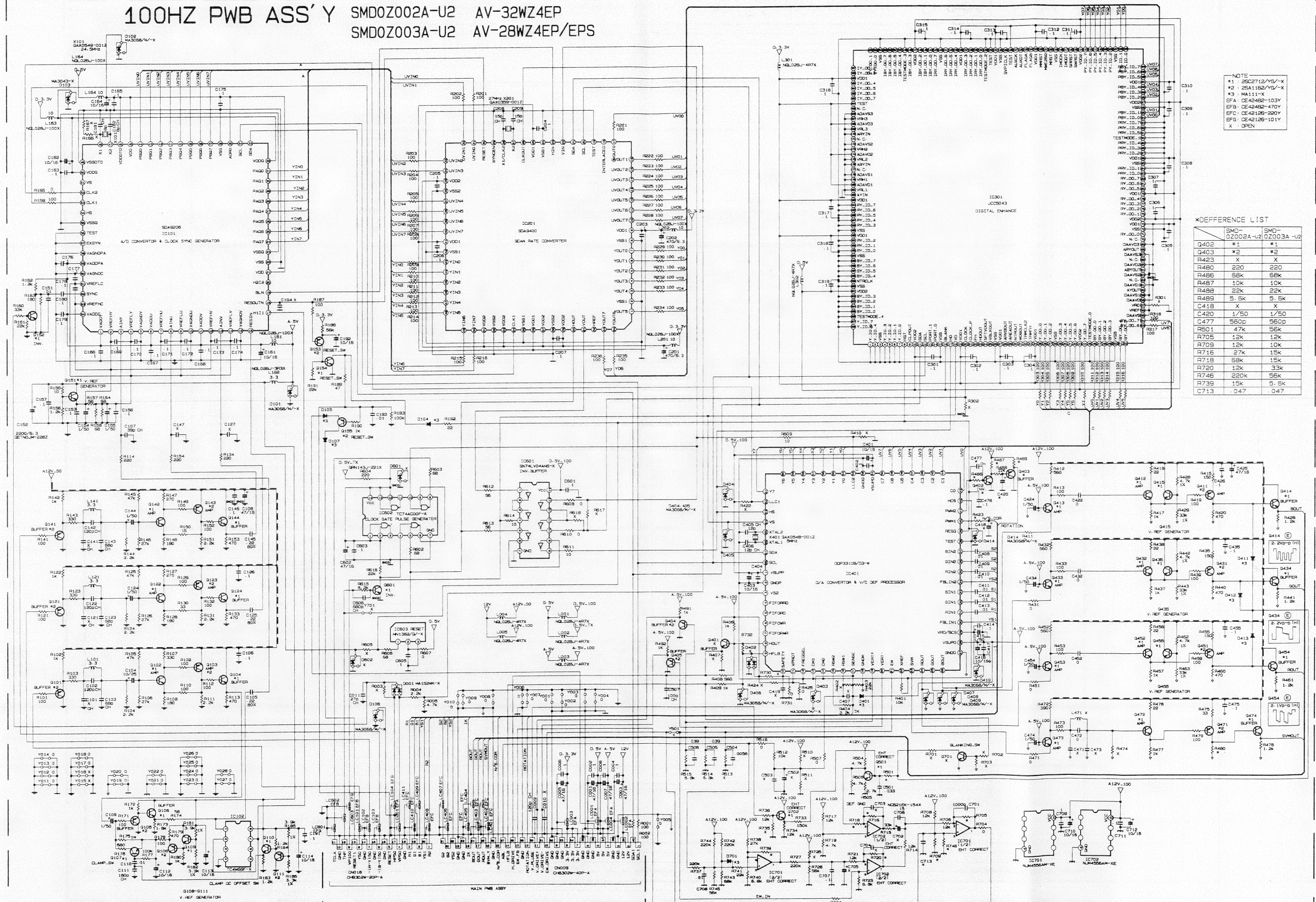


AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS

AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS

# 100Hz PWB CIRCUIT DIAGRAM

## 100HZ PWB ASS'Y SMD0Z002A-U2 AV-32WZ4EP SMD0Z003A-U2 AV-28WZ4EP/EPS



NOTE  
\*1 2SC2712/VB-X  
\*2 2SA1162/VB-X  
\*3 MA1111-X  
EFA CE42482-103V  
EFD CE42482-470V  
EFG CE42482-220V  
EFC CE42482-101V  
X OPEN

\*DIFFERENCE LIST

	SMD-0Z002A-U2	SMD-0Z003A-U2
Q402	*1	*1
Q403	*2	*2
R423	X	X
R480	220	220
R486	56K	56K
R487	10K	10K
R488	22K	22K
R489	5.6K	5.6K
C418	X	X
C420	1/50	1/50
C477	560p	560p
R501	47K	56K
R705	12K	12K
R709	12K	10K
R716	27K	15K
R718	56K	15K
R720	12K	33K
R746	220K	56K
R739	15K	5.6K
C713	.047	.047

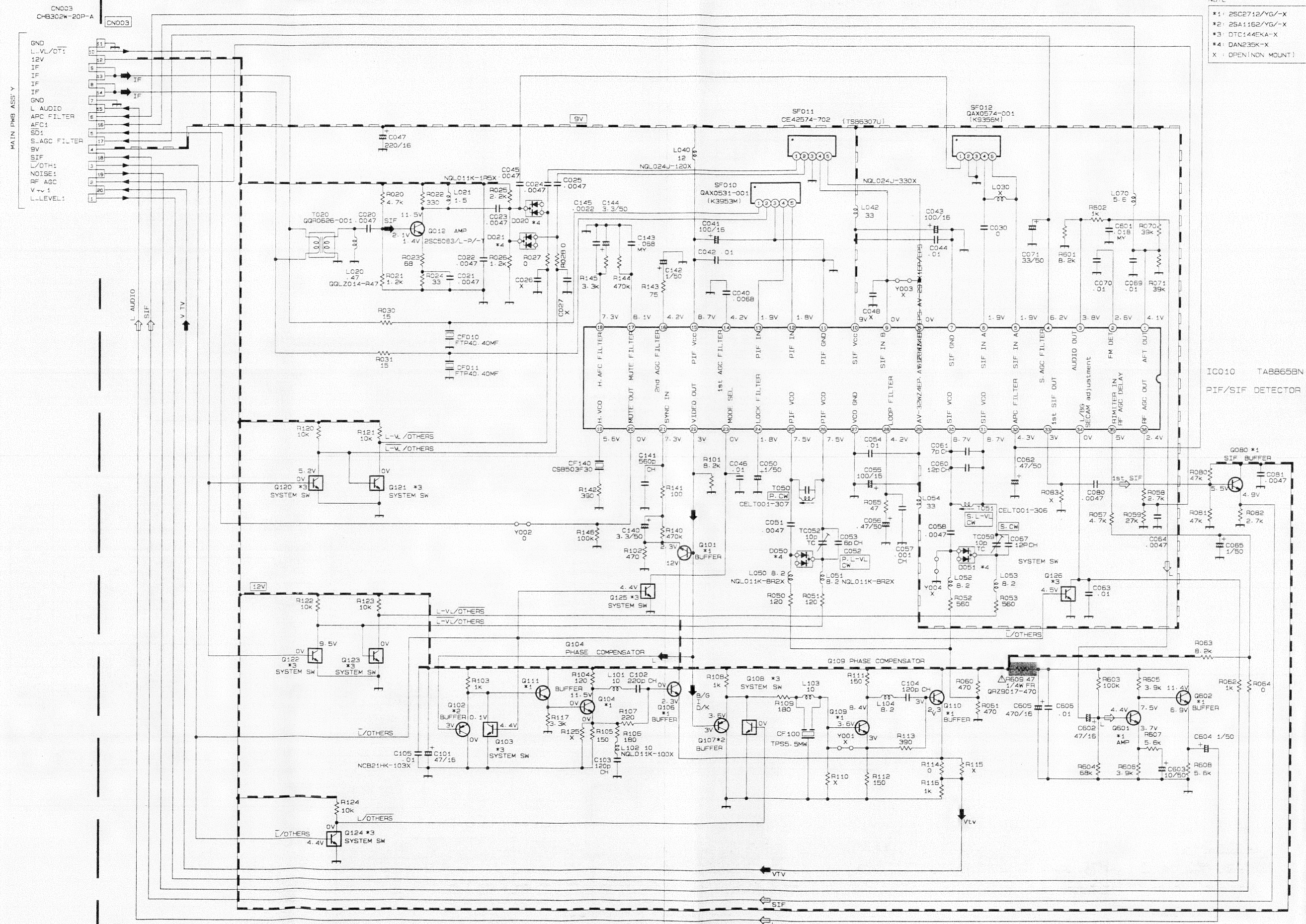


AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS

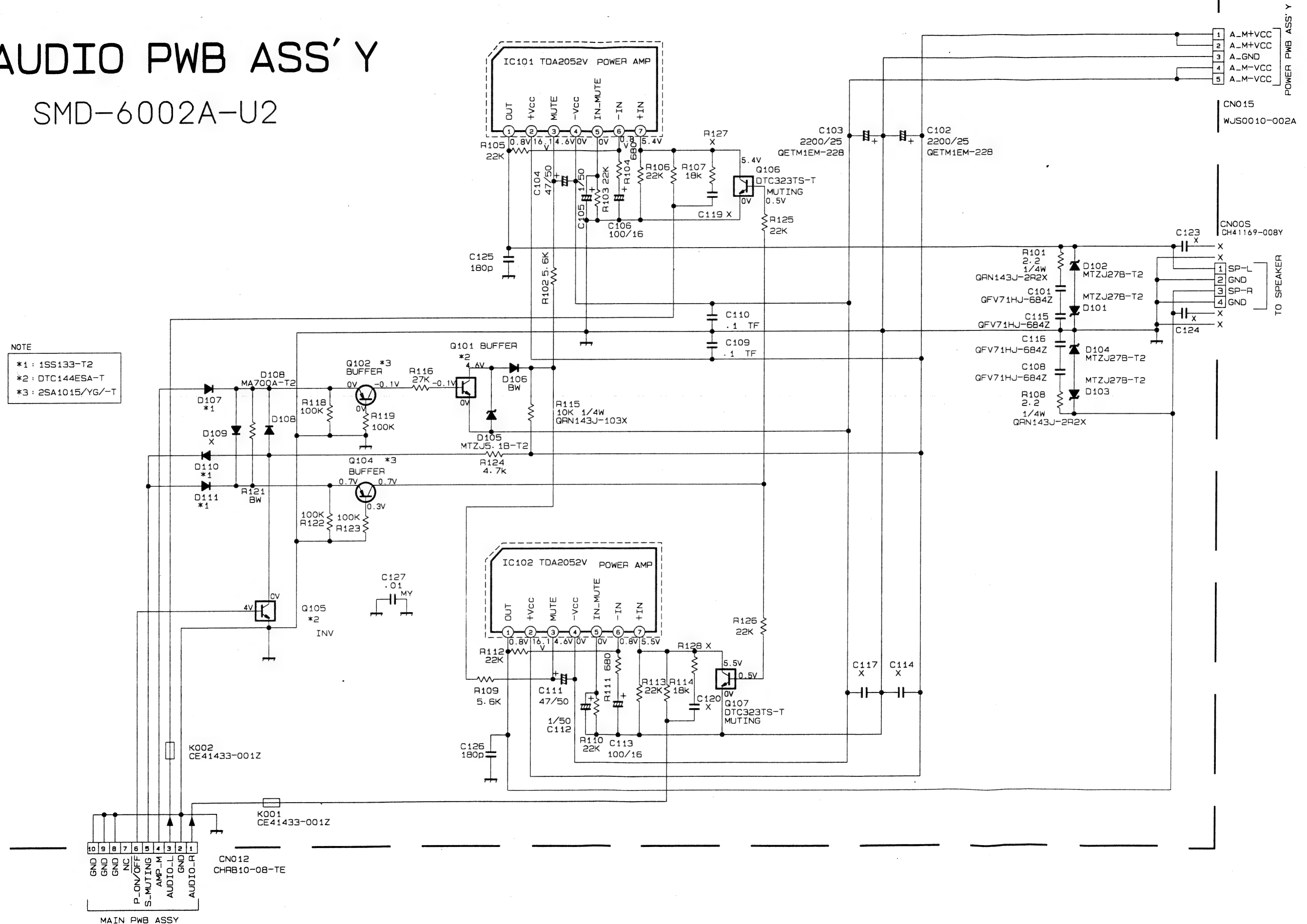
AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS

IF PWB CIRCUIT DIAGRAM

IF PWB ASS'Y SMD0F001A-U2



AUDIO PWB ASS'Y  
SMD-6002A-U2

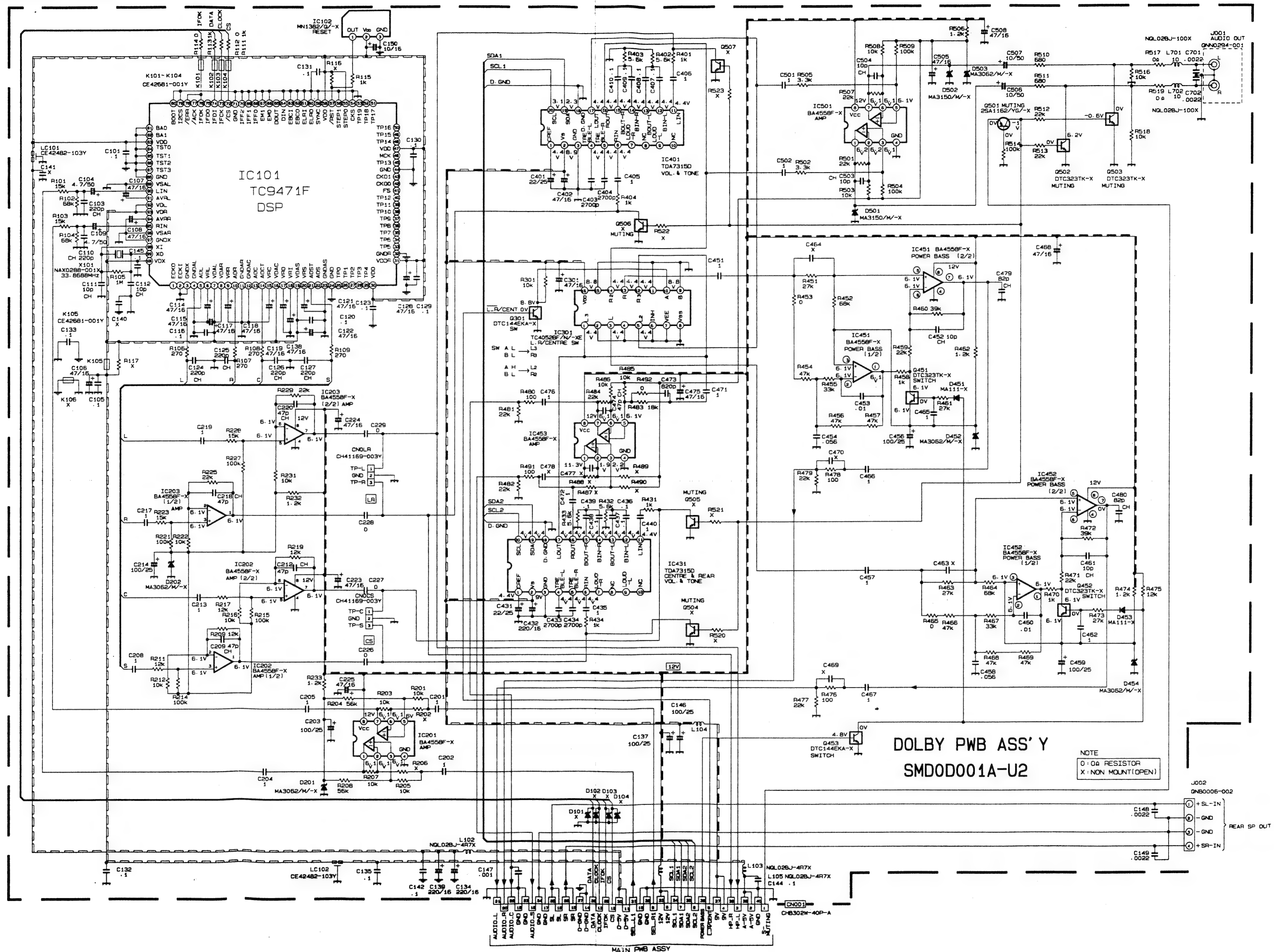




### ***DOLBY PWB CIRCUIT DIAGRAM***

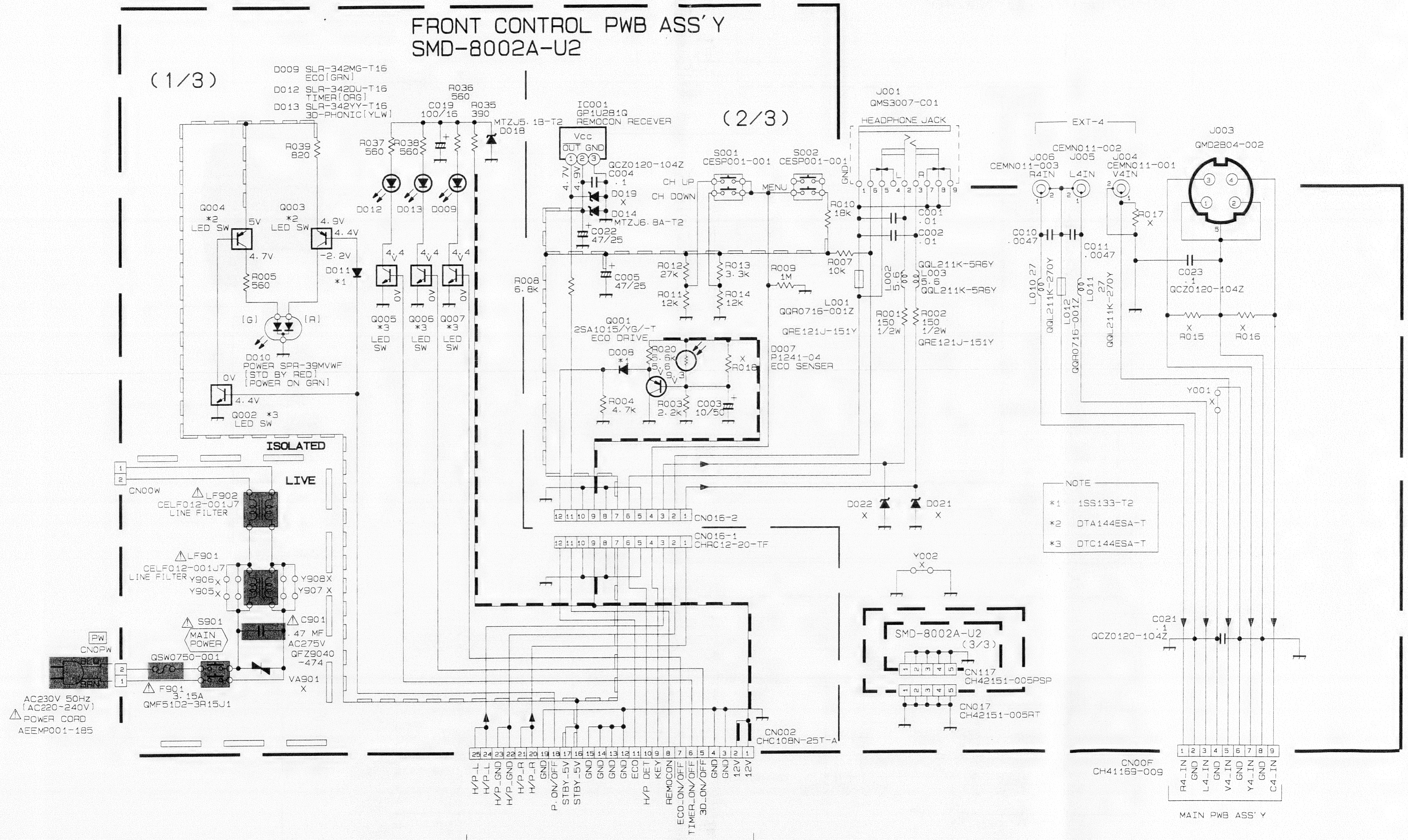
AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS

AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS





FRONT CONTROL PWB CIRCUIT DIAGRAM



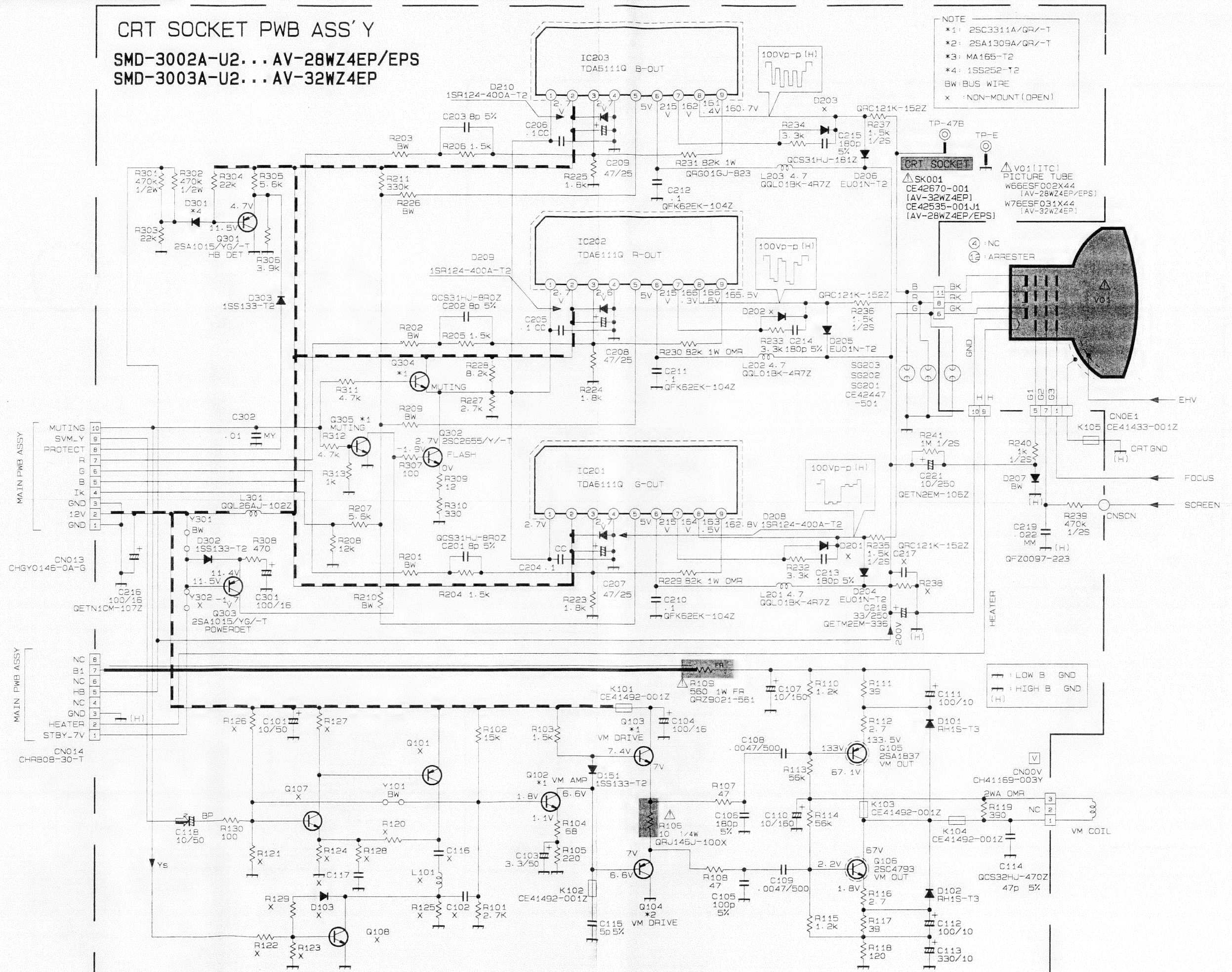


# CRT SOCKET PWB CIRCUIT DIAGRAM

AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EP  
AV-28WZ4EP

## CRT SOCKET PWB ASS'Y

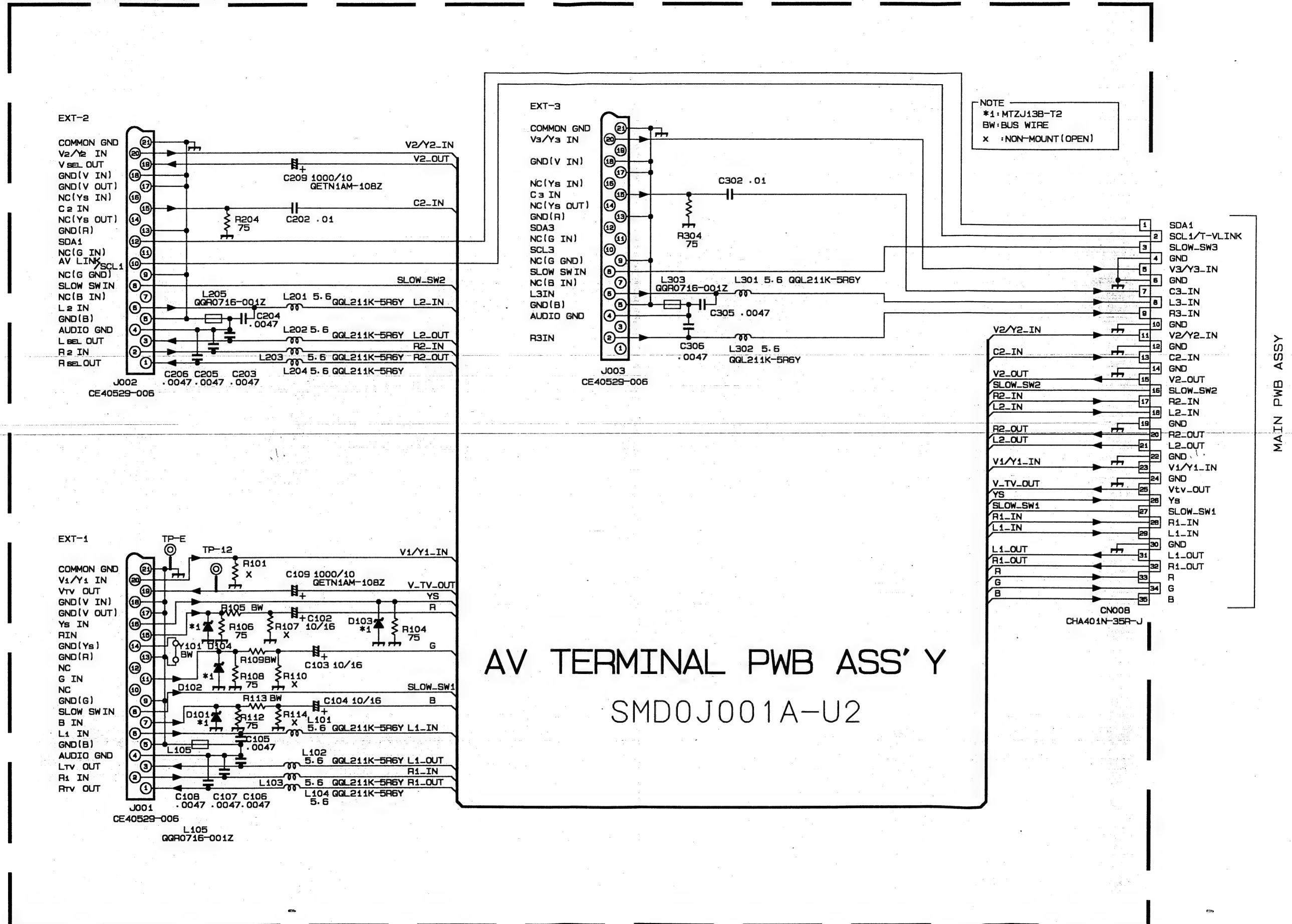
SMD-3002A-U2... AV-28WZ4EP/EP  
SMD-3003A-U2... AV-32WZ4EP



AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS

AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS

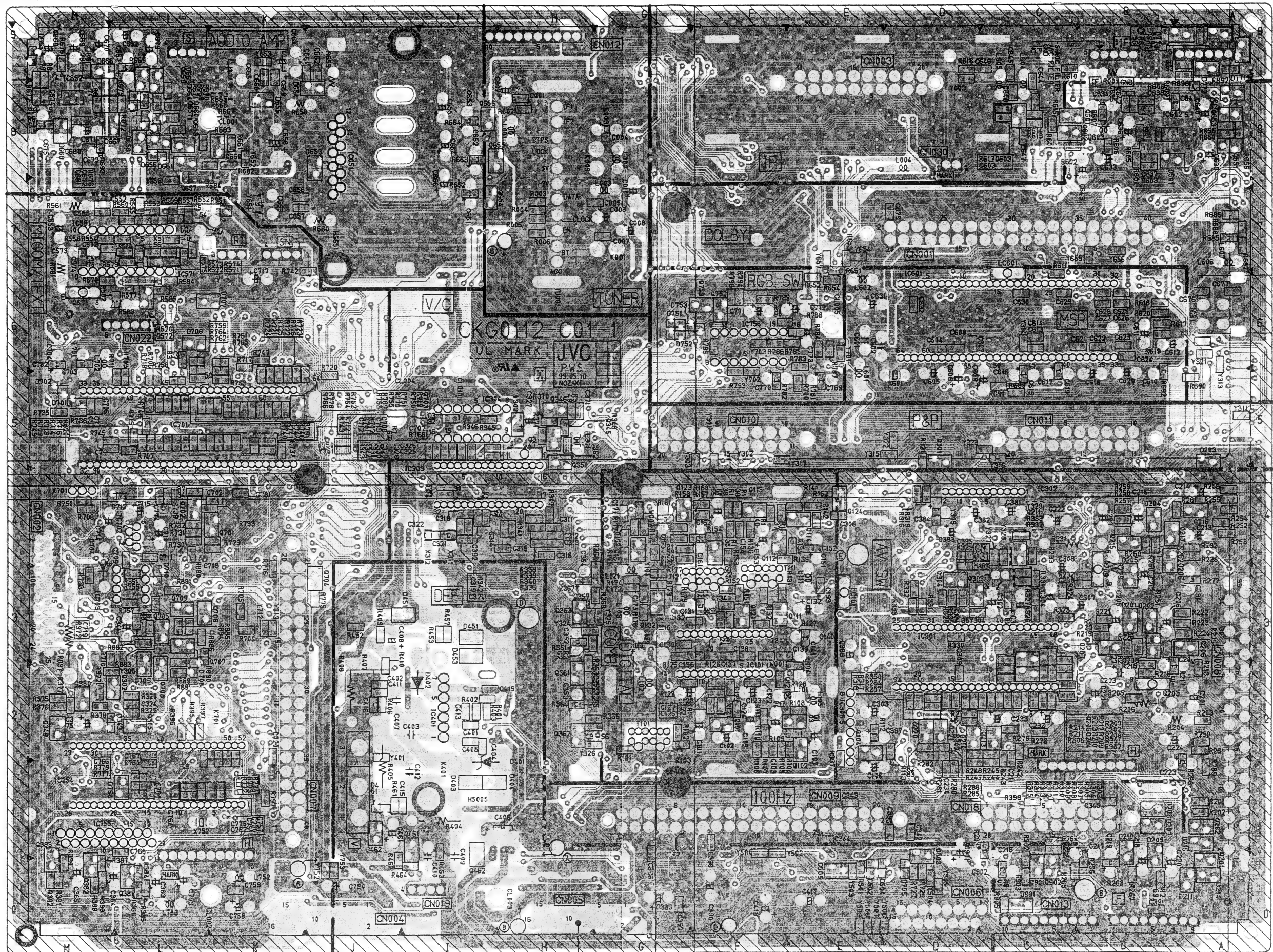
# AV TERMINAL PWB CIRCUIT DIAGRAM





AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS

**FRONT**



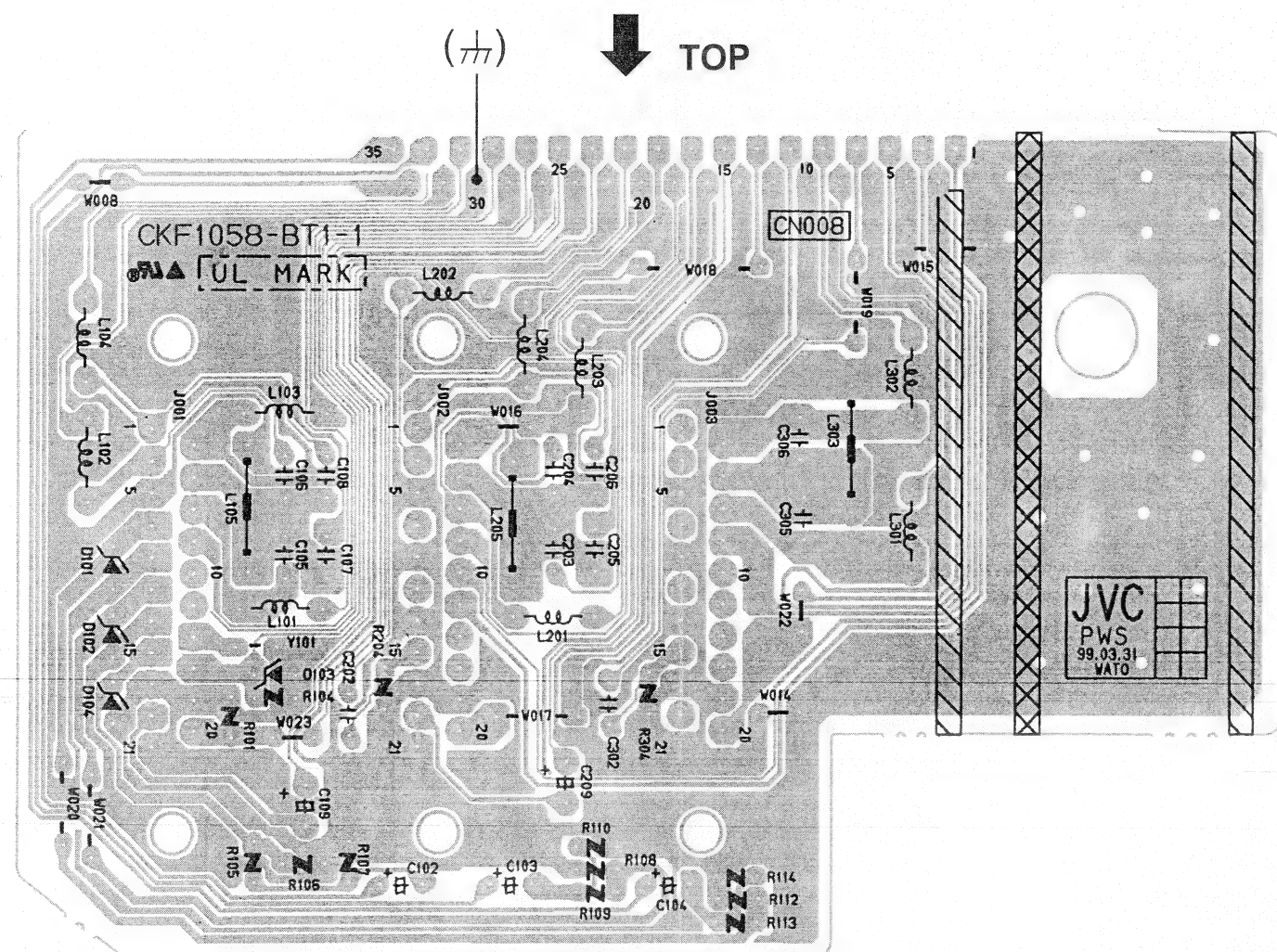


$$\left( \begin{array}{c} | \\ \vdots \\ | \end{array} \right)$$

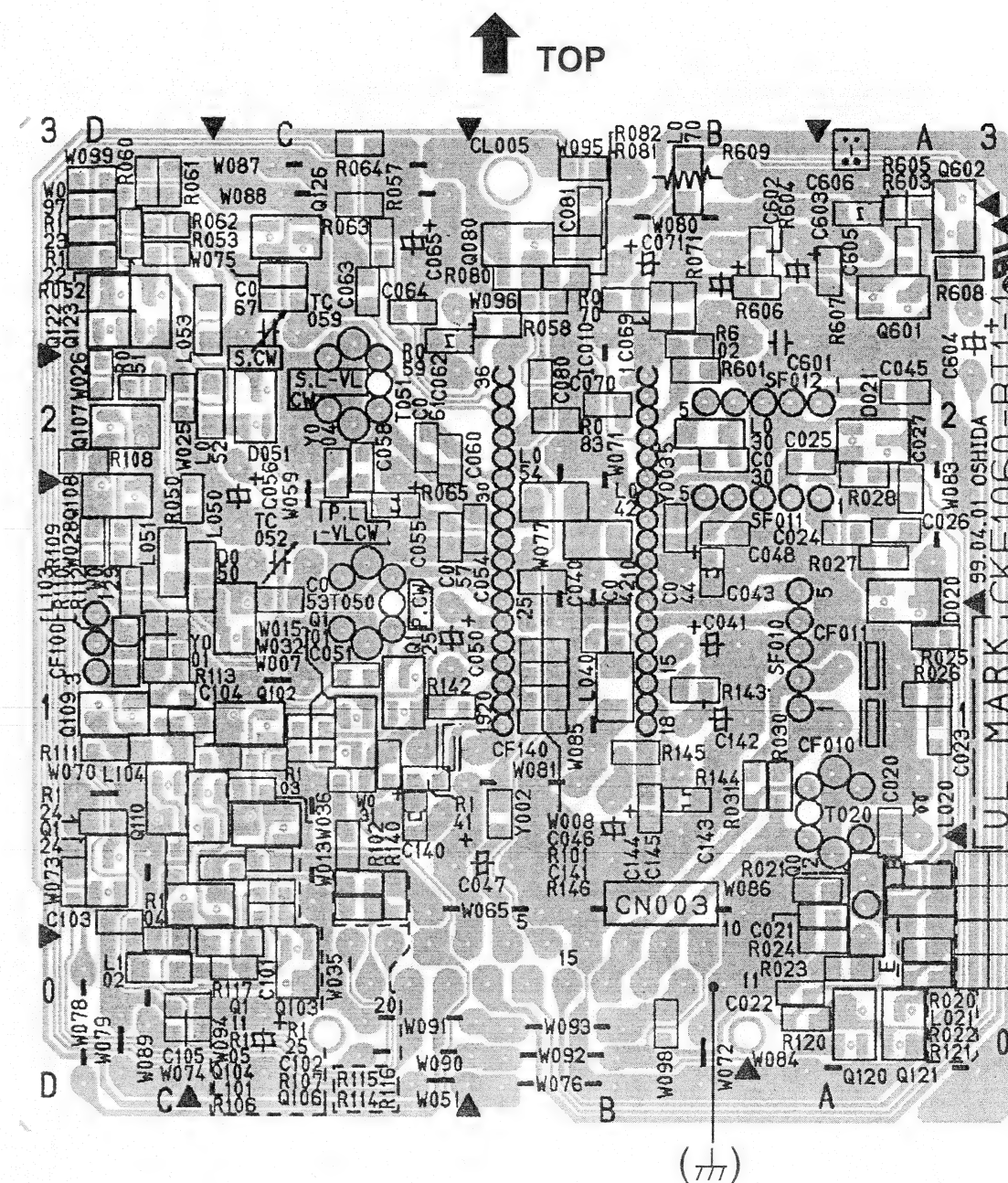
TP-91(B1)

TP-E  
( $\pi$ )



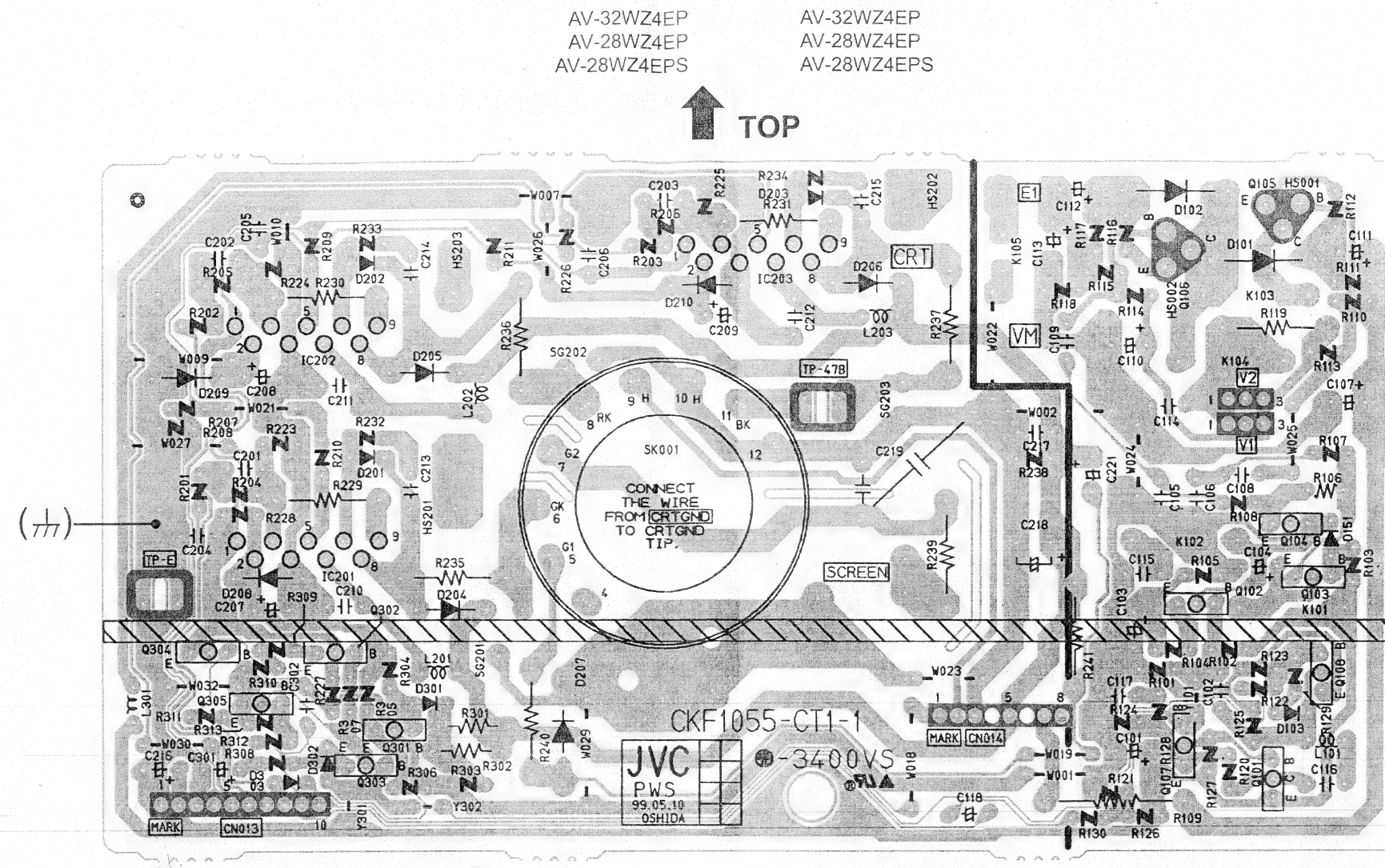


**IF PWB PATTERN**

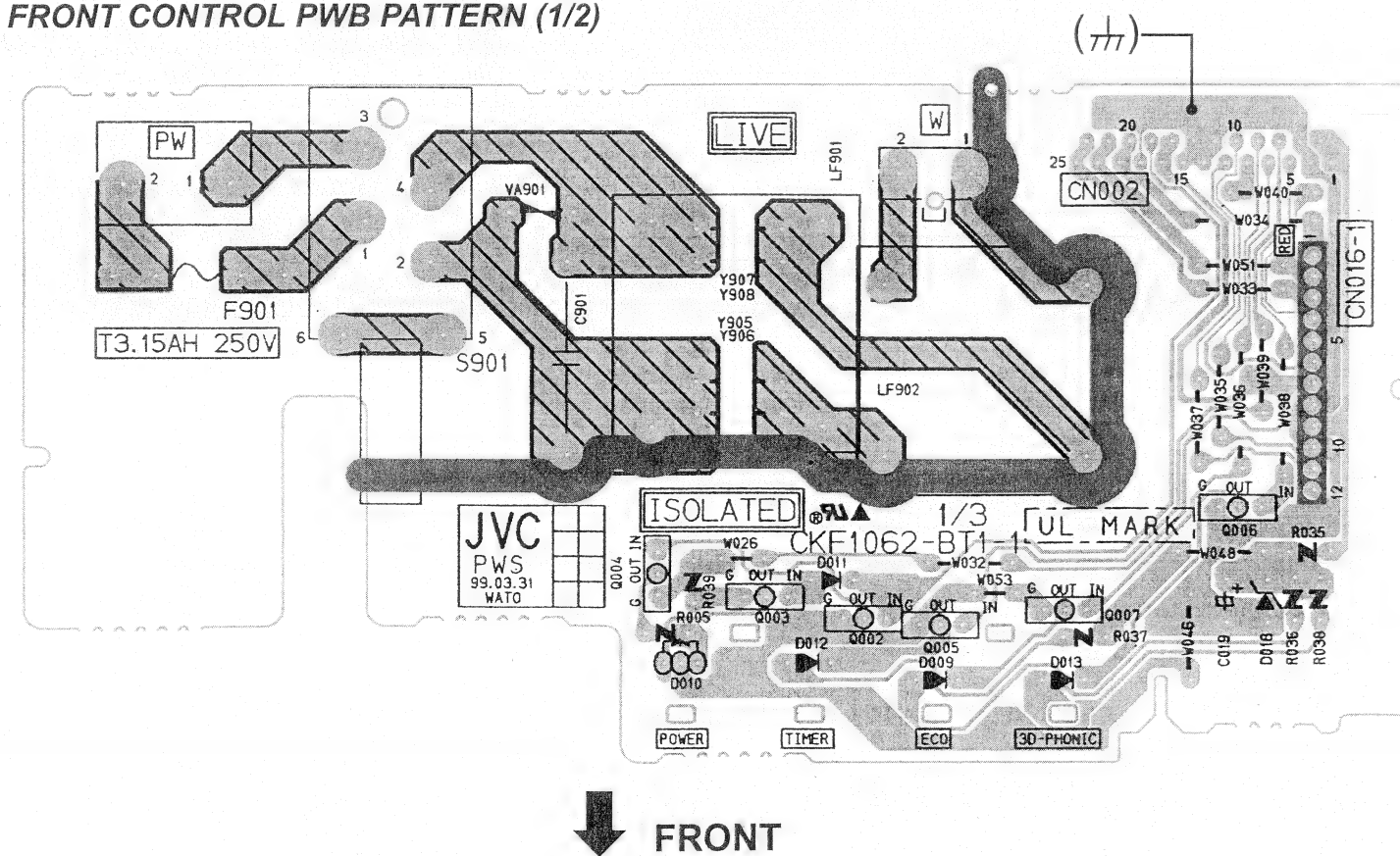




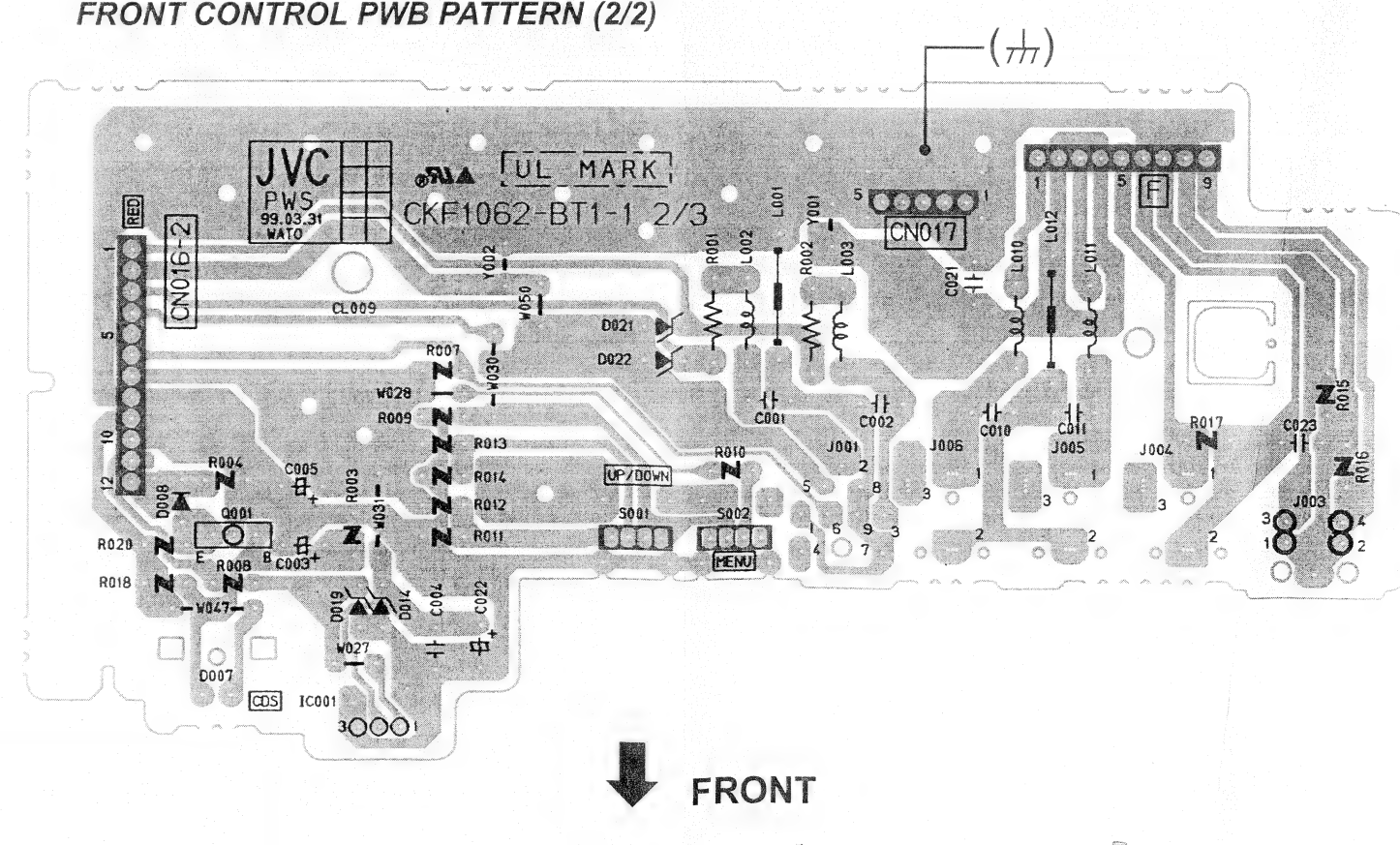
# CRT SOCKET PWB PATTERN



## FRONT CONTROL PWB PATTERN (1/2)



## FRONT CONTROL PWB PATTERN (2/2)









AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS

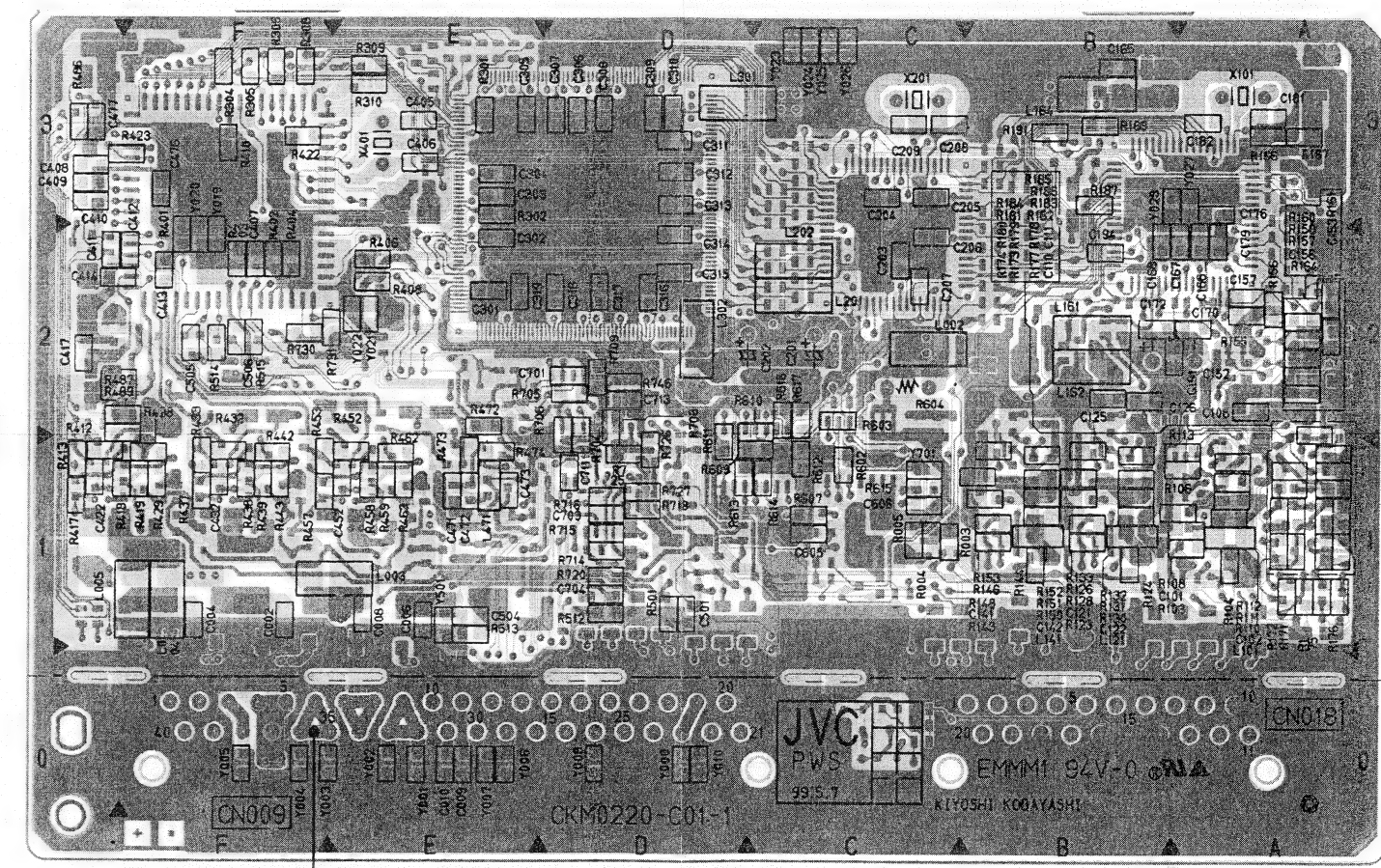
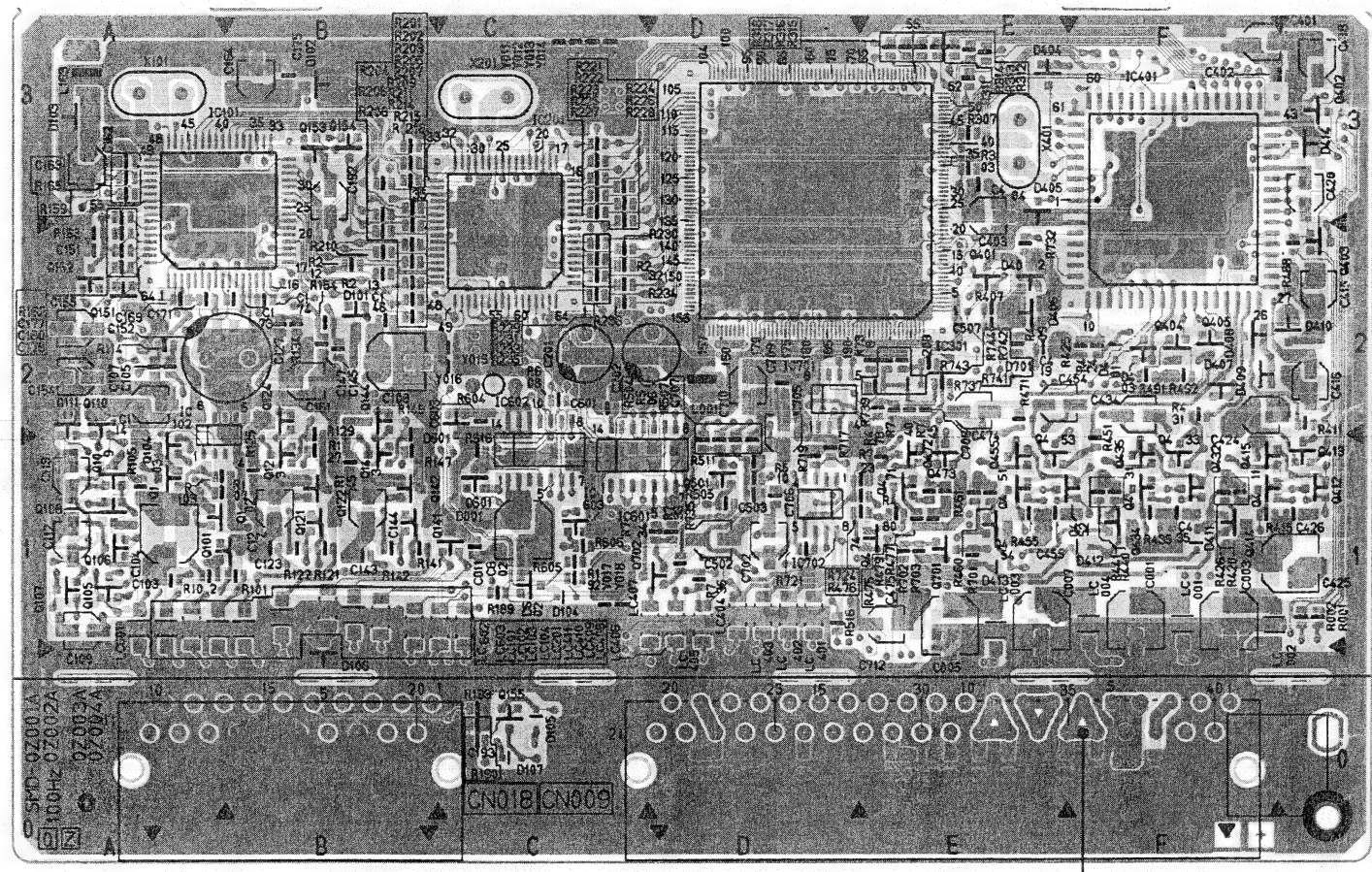
AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS

100Hz PWB PATTERN (PARTS SIDE)

100Hz PWB PATTERN (SOLDER SIDE)

↑ TOP

↑ TOP

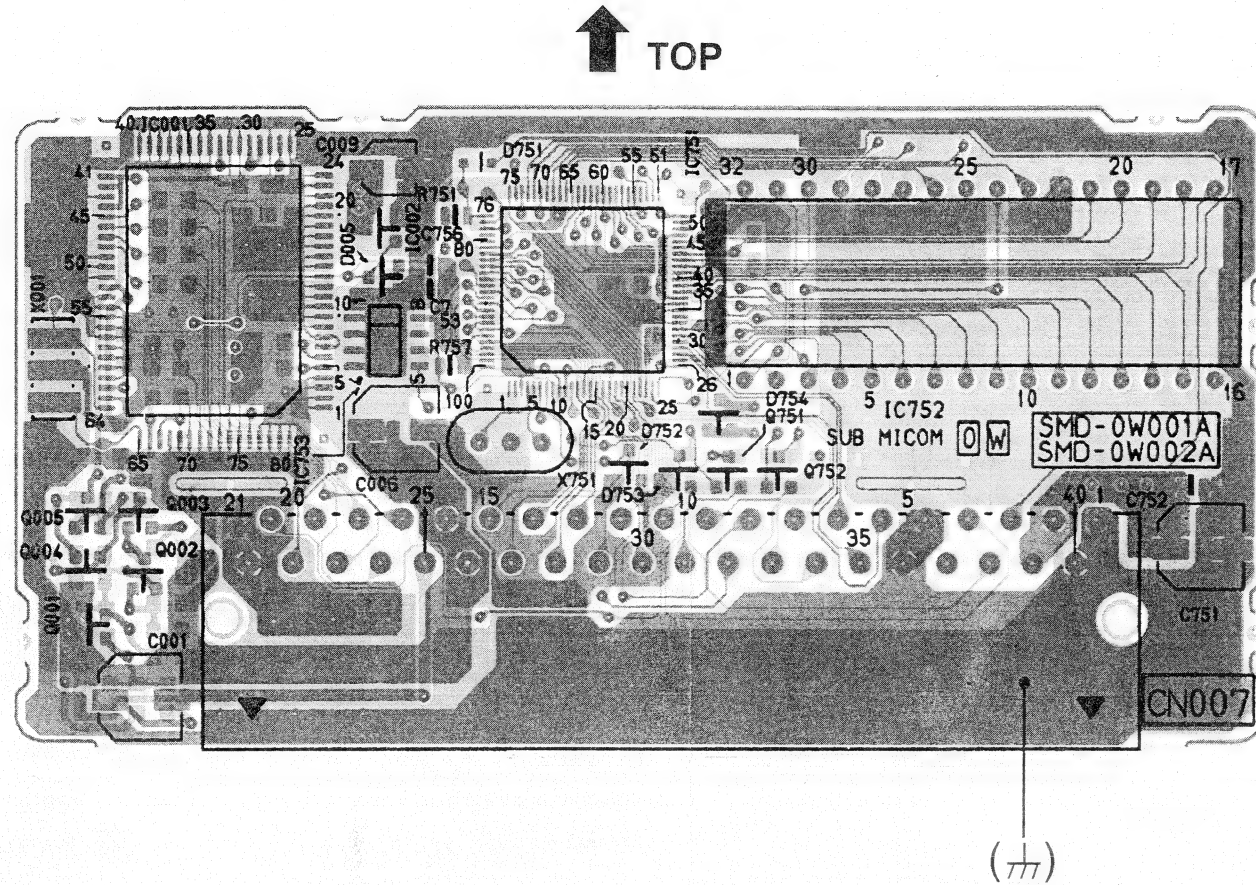


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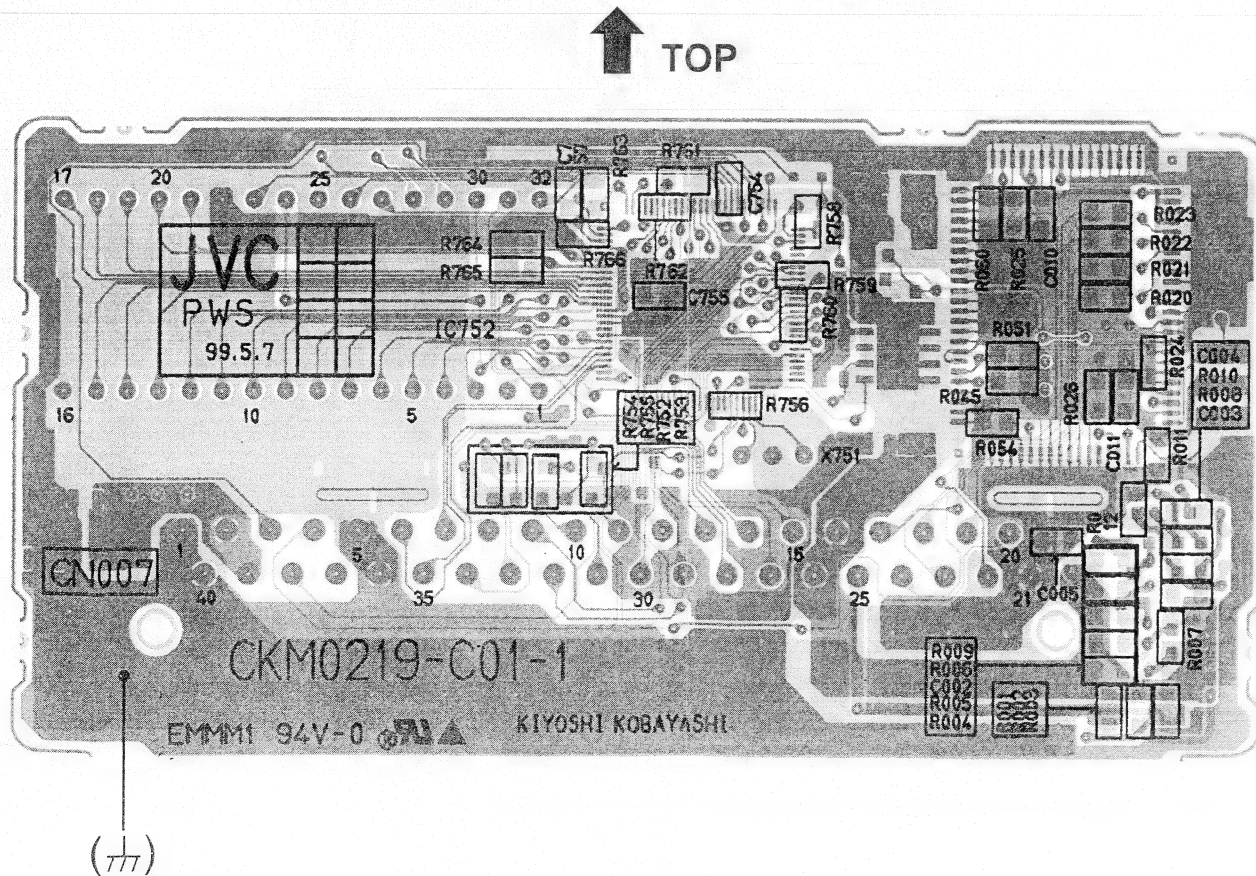
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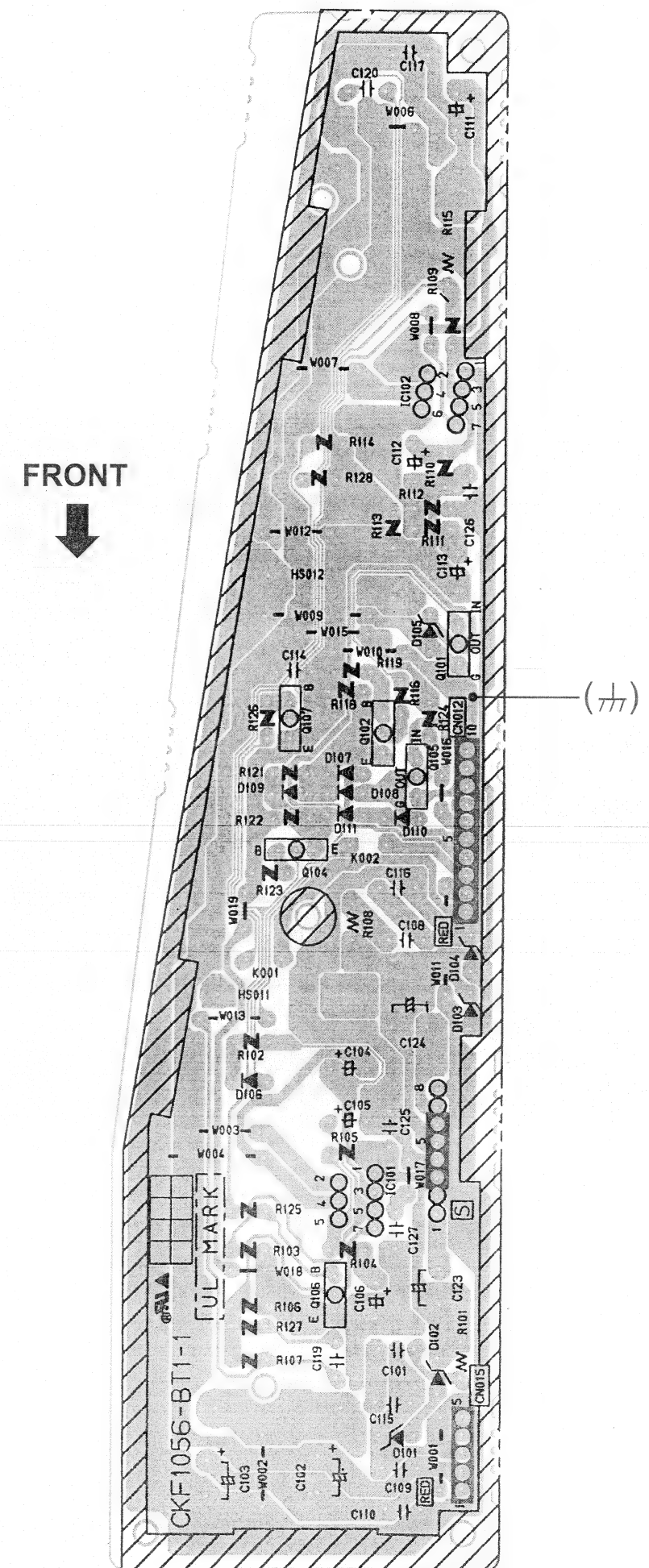
**SUB MICON & AUTO PANORAMA PWB PATTERN (PARTS SIDE)**



**SUB MICON & AUTO PANORAMA PWB PATTERN (SOLDER SIDE)**



### AUDIO PWB PATTERN



# OPERATING INSTRUCTIONS

# JVC

## COLOUR TELEVISION

## AV-28WZ4EP AV-28WZ4EPS AV-32WZ4EP

ENGLISH

## Instructions

Thank you for buying this JVC colour television.  
To make sure you understand how to use your new TV,  
please read this manual thoroughly before you begin.

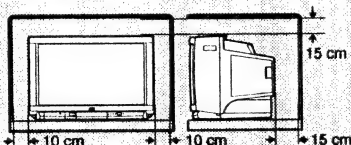
### WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EX-  
POSE THIS APPLIANCE TO RAIN OR MOISTURE.

### CAUTION:

TO ENSURE PERSONAL SAFETY, OBSERVE THE  
FOLLOWING RULES REGARDING THE USE OF THIS  
UNIT.

1. Operate only from the power source specified (AC 220 – 240 V, 50 Hz) on the unit.
2. Avoid damaging the AC plug and power cord.
3. Avoid improper installation and never position the unit where good ventilation is unattainable.  
When installing this television, distance recommendations must be maintained between the floor and wall, as well as instalment in a tightly enclosed area or piece of furniture. Adhere to the minimum distance guidelines shown for safe operation.



4. Do not allow objects or liquid into the cabinet openings.
5. In the event of a fault, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover.

When you don't use this TV set for a long period of time,  
be sure to disconnect the power plug from the AC socket.

*Natural Vision*  
**T-V LINK**

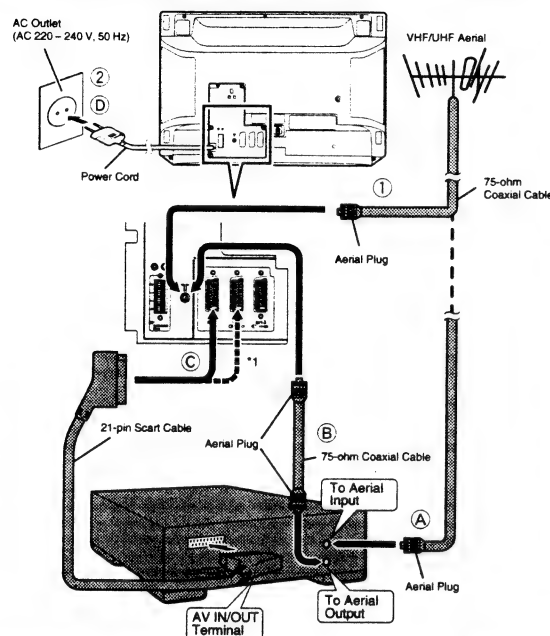
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## Preparation

### 1 Connecting the Aerial and VCR

If connecting a VCR, follow A → B → C → D.  
If not connecting a VCR, follow 1 → 2.



#### Notes:

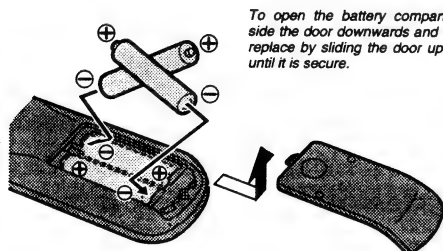
- For further details, refer to the manuals provided with the devices to be connected.
- The connecting cables are not provided.
- A video can be viewed from the VCR without performing C. For details, refer to the VCR manual.
- The shaded items are not provided.
- To connect additional external devices, please refer to page 30.
- To connect external speakers or audio system, please refer to page 31.
- This TV is T-V LINK compatible. To operate T-V LINK, a T-V LINK compatible VCR must be connected to the EXT-2 Terminal on the TV.

#### Notes:

- For details about T-V LINK, refer to page 5.
- When a decoder is connected to a T-V LINK compatible VCR, set the Decoder (EXT-2) in the Features menu to ON. (See "Decoder (EXT-2)" on page 24.) Otherwise, you will not be able to view scrambled channels.

### 2 Putting Batteries into the Remote Control

Use two AAA/R03 dry cell batteries.  
Insert the batteries from the ⊖ end, making sure the ⊕ and ⊖ polarities are correct.



To open the battery compartment, slide the door downwards and lift off, replace by sliding the door upwards until it is secure.

#### Notes:

- Follow the warnings printed on the batteries.
- Battery life is about six months to one year, depending on frequency of use.
- If the remote control doesn't work properly, replace the batteries.
- The batteries we supply are only for setting up and testing your TV, please replace them as soon as necessary.
- Always use good quality batteries.

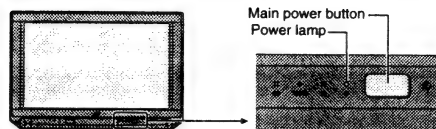
## Preparation

### 3 Initial Setting

You can automatically set up to 99 TV stations to PR channels PR 1 to PR 99 on this TV.

#### 1 Press the Main power button.

The Power lamp lights red (power on), then green (TV on).



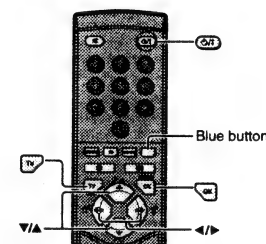
When the TV is first turned on, it enters the initial setting mode, and the JVC logo is displayed.

JVC

#### 2 Press [OK].

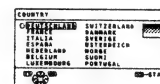


#### 3 Press [V]/[A] to choose ENGLISH.



#### 4 Press [OK].

The language is set for the on-screen display description, and the Country menu appears.



#### 5 Press [V]/[A] to choose your country.



#### 6 Press the blue button.

The Auto Programming starts.  
The EDIT menu is displayed after the PR channels have been set.

#### Notes:

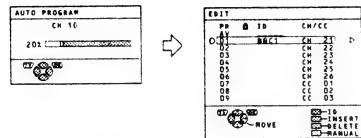
- If this TV identifies a broadcast station name, that station ID is also automatically registered in a PR channel.
- To cancel the Auto programming, press [TV].
- To edit PR channels or allocate a station to the PR0 (AV) channel, refer to page 26 "Edit/Manual".

ENGLISH

AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPs

(Continued to the next page)

## Preparation



### Note:

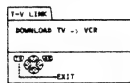
- If a station you want to view is not set to a PR channel, manually set it using Edit menu. (See page 26.)

### When the ACI menu is displayed:

If your Cable TV station supports ACI (Automatic Channel Installation), the ACI menu is displayed. Please operate it according to the "ACI Operation" procedures at the bottom of this page. The channel is set quickly to the PR channel according to the order decided for all the channels.

## 7 Press to exit the Edit menu.

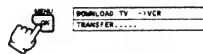
The T-V LINK menu is displayed.



## ■ When a T-V LINK compatible VCR is connected

## 8 Turn the VCR on.

## 9 Press .



The transmission of PR channel data from the TV to the VCR begins. The display disappears once the data transmission ends.  
This completes the Initial Setting procedure.

### Notes:

- For details about T-V LINK, refer to page 5.
- Depending on the type of VCR, the display may change once data transmission ends. In this case, refer to the VCR's instruction manual.

## ACI Operation

### 1 Press to choose your area.

### 2 Press .

"ACI" is displayed in the AUTO PROGRAM menu and the ACI starts. The EDIT menu is displayed after the channels have been set.

### 3 If "ACI ERROR" is displayed, press to re-start the ACI.

- If "ACI ERROR" is displayed anyway, press and cancel ACI, then start the ordinary Auto Programming.

### Note:

- The ACI may not work correctly if you don't have good reception.

## T-V LINK Functions

- When a T-V LINK compatible VCR is connected to the EXT-2 Terminal on the TV, the procedures for setting up the VCR and viewing videos are simplified.

- T-V LINK uses the following features:

	Function	Features	Remarks
①	Preset Download	Downloads the PR channel tuning information from the TV to the VCR.	<ul style="list-style-type: none"> <li>• Starts automatically when the initial setting is complete or whenever the Auto Program or Edit/Manual operations from the Install menu are performed.</li> <li>• This function can be operated via VCR operation.</li> </ul>
②	DIRECT REC (WYSIWYR)	- What You See is What You Record - You can record to VCR the images that you are currently viewing on TV by one-touch operation. For details, read the manual for your VCR.	<ul style="list-style-type: none"> <li>• Operate via the VCR. (Operation via the TV is not possible.) "VCR IS RECORDING" is displayed.</li> </ul>
③	TV Auto Power On VCR Image View	When the VCR starts playing, the TV automatically turns on and switches to the EXT-2 input mode.  When the VCR menu is operated, the TV automatically turns on and switches to EXT-2 input mode.	<ul style="list-style-type: none"> <li>• This function does not operate if your TV's main power is turned off. Set your TV's main power to on (standby mode).</li> </ul>

- To use T-V LINK:

- a T-V LINK compatible VCR is necessary.
- the VCR must be connected to the EXT-2 terminal on the TV by a fully wired SCART cable.

- T-V LINK compatible VCRs:

In addition to all JVC VCRs that have the T-V LINK logo, any VCR that has one of the following logos are available for use:

- "Q-LINK" (a trademark of Panasonic Corporation)
- "Data Logic" (a trademark of Metz Corporation)
- "Easy Link" (a trademark of Philips Corporation)
- "Megalogic" (a trademark of Grundig Corporation)
- "SMARTLINK" (a trademark of Sony Corporation)

- These VCRs may support some or all of the features described above. For details, refer to the VCR Instruction Manual.

- When "FEATURE NOT AVAILABLE" is displayed:

If "FEATURE NOT AVAILABLE" is displayed after download execution, the download was not performed correctly. Confirm the following before re-executing download:

- that the VCR power is turned on.
- that the VCR is T-V LINK compatible.
- that the VCR is connected to the EXT-2 terminal.
- that the SCART cable is fully wired.

- Operating Precautions for DIRECT REC:

- Generally, the VCR cannot record a channel that cannot be received properly by the VCR's tuner even though that channel could be viewed on the TV.
- In the following conditions, the VCR will stop recording if the TV is turned off, if the TV channel or input is switched, or if the menu is displayed on the TV:
  - When recording images from an external device connected to the EXT-1, EXT-3 or EXT-4 terminal.
  - When recording a channel after it has been unscrambled on a decoder.
  - When recording a channel by using the TV's output because that channel cannot be properly received on the VCR's tuner.

### Note:

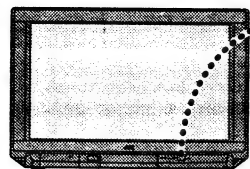
- Not all VCRs support this type of data communication. Some may support certain features and not support others. For complete details, refer to the VCR instruction Manual.

### Note:

- Some VCRs can record a channel by using the TV's output if that channel can be viewed on the TV, even though the channel cannot be received properly by the VCR's tuner. For details, refer to the VCR instruction Manual.



## Basic Operation



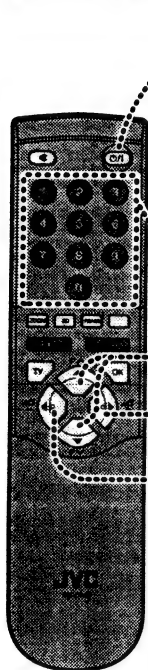
### Turn the Main power on.

- The Power lamp lights red and your TV is in the standby mode.  
• If the Power lamp lights green, the TV is already on.

### To turn the Main power off:

- The Power lamp goes off.  
• To save energy, turn the main power off if not using the TV for a long period of time.

## Operating with the Remote Control

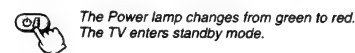


### 1 Turn the TV on from standby mode.



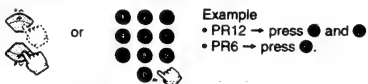
The Power lamp lights red to green.

### To turn the TV off:



The Power lamp changes from green to red.  
The TV enters standby mode.

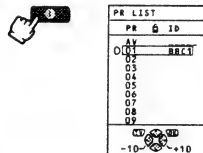
### 2 Choose a TV channel.



Example  
• PR12 → press ● and ●.  
• PR6 → press ●.

### Use the PR List:

#### Display the PR List.



#### Choose a TV channel.



#### Press



### 3 Adjust the volume.

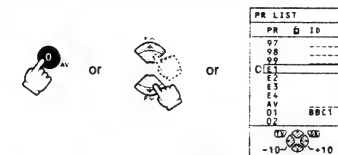
The Volume indicator appears and the volume changes as -/+ are pressed.

## Basic Operation

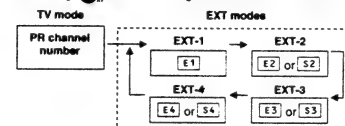
### To listen to the sound using headphones, see "Headphone" on page 19.

### Watch images from external devices.

Choosing an EXT terminal or PR 0 (AV) channel.



- The EXT terminals are registered after the PR 99 channel.
- Pressing ● button changes the choice as follows:

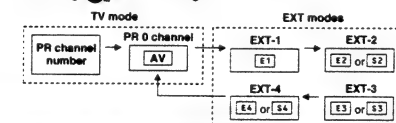


- To return to a TV channel:



- When the TV and VCR are connected only by the RF cable, the VCR RF channel\* must be preset to the PR 0 (AV) channel to view VCR video. Choosing the PR 0 (AV) channel allows you to view images from VCR video.

Pressing ● button changes the choice as follows:



#### Notes:

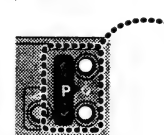
- To use S-Video mode to view input from an S-VHS VCR, see "To choose S-VIDEO input" on page 22. When choosing EXT-2, EXT-3 or EXT-4 input terminals as S-VIDEO input, E2, E3 or E4 changes to S2, S3 or S4 in the display.
- If you don't have a clear picture or no colour appears, change the colour system manually. (See "Colour System" on page 16.)
- When choosing an EXT terminal with no input signal, the EXT number and ID become fixed on screen.

#### Note:

- The VCR RF channel is the channel that is sent as the RF signal from the VCR. To set the VCR RF channel to the PR 0 (AV) channel, refer to "Edit/Manual" on page 26. Also refer to the manual provided with the VCR.

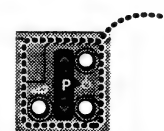
## Operating with the Buttons on the TV

(Behind the front cover)



### 1 Turn the TV on from standby mode.

### 2 Choose a channel or an EXT terminal.

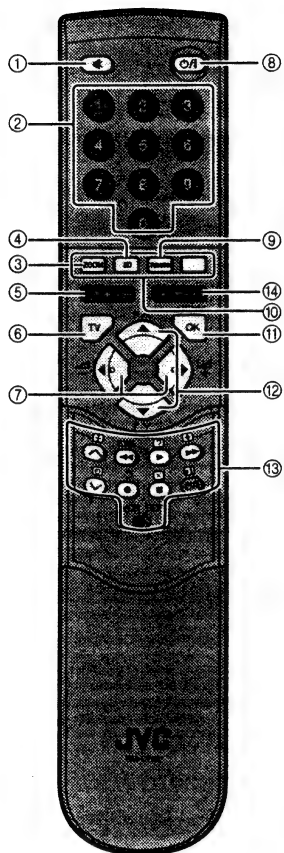


### 3 Adjust the volume.

- Press ●.  
The volume level indicator appears.

- Press -/+ while the volume level indicator is displayed.  
Indicator is displayed.

## Remote Control Buttons and Functions



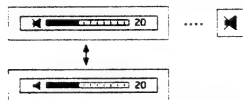
How to open the cover



### 1 Muting Button

You can turn the volume off instantly.

Pressing (Muting) changes the current volume to "0".



### 2 Number Buttons

You can choose a channel by entering the channel number.

Example:

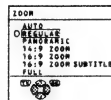
- PR 12 → press and .
- PR 6 → press .

■ You can choose an EXT terminal or PR 0 (AV) channel by pressing button repeatedly.

### 3 ZOOM Button

You can change the screen size. (See page 9.)

Press and press to choose ZOOM mode.



Press .

The picture expands and the choosed ZOOM mode is displayed in about 5 seconds.

Examples:

- For details, see next page.
- You can preset a ZOOM mode for the normal picture. See "4:3 Auto Aspect" on page 17.

## Remote Control Buttons and Functions

### ZOOM Button (continued)

Mode	Recommended Picture (Aspect)	Display	Remarks
AUTO	Any picture format except Normal Picture (4:3 Aspect Ratio)	The picture will be automatically displayed in the optimum screen size.	<ul style="list-style-type: none"> <li>• AUTO may not function properly with poor signal quality. In this case, choose an optimum ZOOM mode manually.</li> </ul>
	Normal Picture (4:3 Aspect Ratio)	Displayed in accordance with the zoom mode set on the 4:3 Auto Aspect menu. (See page 17 for further details.)	
REGULAR	Normal Picture (4:3 Aspect Ratio)		<ul style="list-style-type: none"> <li>• Use to view a normal picture (4:3 aspect ratio) unchanged.</li> </ul>
PANORAMIC	Normal Picture (4:3 Aspect Ratio)		<ul style="list-style-type: none"> <li>• This mode stretches the left and right sides of a normal picture to fill the screen, in a way that does not appear unnatural.</li> <li>• The top and bottom of the picture are slightly cut off.</li> </ul>
14:9 ZOOM	Wide Picture (14:9 Aspect Ratio)		
16:9 ZOOM	Wide Picture (16:9 Aspect Ratio)		
16:9 ZOOM SUBTITLE	Wide Picture (16:9 Aspect Ratio) with Subtitles		
FULL	Normal Picture (4:3 Aspect Ratio)		<ul style="list-style-type: none"> <li>• This mode uniformly stretches the left and right sides of a normal picture (4:3 aspect ratio) to fill the wide TV screen.</li> <li>• Use for pictures with a 16:9 aspect ratio that have been squeezed into a normal picture (4:3 aspect ratio), you can restore their original dimensions.</li> </ul>

#### Note:

- This television supports WSS (wide-screen signals). When broadcasts with WSS are received with the ZOOM mode set at AUTO, the most suitable ZOOM mode is automatically selected in accordance with the WSS.

#### Adjusting the visible area of the picture.

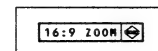
If subtitles or the top (or bottom) of the picture are cut off, adjust the visible area of the picture manually.

Press .

The ZOOM menu appears.

Press to display the ZOOM mode indication.

Indicator is displayed.



Before it disappears, press to adjust the visible area vertically.

#### Notes:

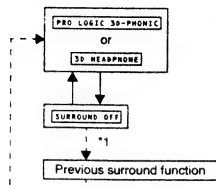
- You cannot adjust the visible area in AUTO, REGULAR and FULL mode.
- To return to the default position, display the ZOOM menu again and press .



## Remote Control Buttons and Functions

## 4 3D Button

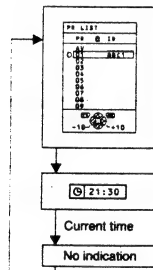
Pressing **3D** (3D) toggles the surround function as follows:



- \*1: If a surround function different from the Dolby Pro Logic 3D-Phonic or the 3D Headphone is activated before you press **3D** (3D), that surround function is returned to.
- The Dolby Pro Logic 3D-Phonic will be activated when the headphones are not connected. For details on the Dolby Pro Logic 3D-Phonic, refer to page 19.
- The 3D Headphone will be activated when the headphones are connected. For details on the 3D Headphone, refer to page 21.
- The 3D lamp on the TV lights when the Dolby Pro Logic 3D-Phonic or 3D Headphone function is activated.

## 5 Information Button

Pressing **INFO** (Information) changes the display as follows.

**About the PR List:**

You can choose TV channels and EXT terminals operating the PR List. For details, see "Use the PR List" on page 6.

**About the current time display:**

This TV uses teletext data to set the current time.

- If the TV has not received a station that has teletext data since it was turned on, the time display is blank. To see the current time, choose a station that is broadcasting teletext data. As long as you do not turn off the TV, then even if you choose other stations, the time will still be displayed.
- When watching videos, the wrong current time is sometimes displayed.

**Note:**

- When an EXT terminal with no input signal is chosen, the EXT number and ID become fixed on the screen.

- The **0** (Information) button is also used for the menu operation. Please refer to "Menu Operation" on page 14 for more information.

## 6 TV Button

You can return to the TV mode instantly by pressing **TV**.

- The **TV** button is also used for the menu operation. Please refer to "Menu Operation" on page 14 for more information.

## 7 &lt;/&gt; Buttons

You can adjust the volume.

- The Headphone volume cannot be adjusted with the </> buttons. If you want to adjust it, please refer to "Headphone" on page 19.
- The </> buttons are also used for the menu operation. Please refer to "Menu Operation" on page 14 for more information.

## 8 Standby Button

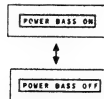
Pressing **STANDBY** (Standby) button turns the TV on or off.

- When the TV is turned on, the power lamp changes from red to green.

## 9 P.BASS (power bass) Button

You can enjoy richer and fuller bass sound.

Pressing **P.BASS** (Power Bass) turns the Power Bass on or off.



## 10 Colour Buttons

The colour buttons are used for the teletext operations or the menu operations. Please refer to "Teletext Control Buttons and VCR/TEXT Switch" on page 12 or "Menu operation" on page 14 for more information.

## 11 OK Button

The **OK** button is used for menu operation. Please refer to "Menu Operation" on page 14 for more information.

## 12 &lt;/&gt; Buttons

You can choose a channel by pressing the </> buttons.

- The </> buttons are also used for the menu operation. Please refer to "Menu Operation" on page 14 for more information.

## 13 VCR Control Buttons and VCR/TEXT Switch

You can control your JVC VCR using the VCR Control buttons.

Set the VCR/TEXT Switch to the VCR side.



Press a VCR control button to control your JVC VCR.

**Notes:**

- For details on the VCR Control buttons, see the VCR manual.
- Depending on your VCR, the remote control may not operate perfectly, and may not even control the VCR at all.

## Remote Control Buttons and Functions

AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS

ENGLISH

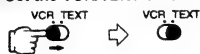
## 10 13 14 Teletext Control Buttons and VCR/TEXT Switch

## ■ Basic operation

You can view three types of teletext broadcasts on the TV: Fastext, TOP and WST.

1 Choose a channel with a teletext broadcast.

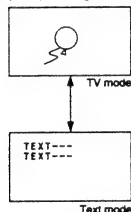
2 Set the VCR/TEXT switch to the TEXT side.



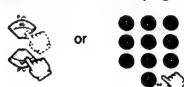
3 Display the teletext.



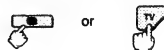
Pressing (Text) change the mode as follows:



4 Choose a teletext page.



● To return to the TV mode:



## Notes:

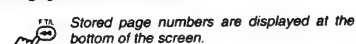
- If you have trouble receiving teletext broadcasts, consult your local dealer or the teletext station.
- Category names of teletext pages may appear instead of page numbers.
- In Text mode, ZOOM mode is fixed to FULL mode.
- None of the Menu operations are possible when viewing a teletext programme.

## ■ Using the List Mode

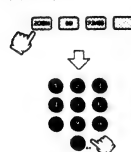
You can store the numbers of your favourite teletext pages and call them up quickly using the colour buttons.

To store the page numbers

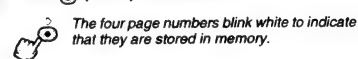
1 Engage the List mode.



2 Choose the position, then enter the page number.



3 Press (Store) and hold on.



To call up a stored page

1 Engage the List mode.



To cancel the List mode:

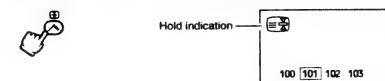


2 Press a colour button to which a page has been assigned.



## ■ Hold

You can hold a teletext page on the screen for as long as you want, even while several other teletext pages are being received.



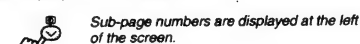
To cancel the hold:



## ■ Sub Page

Some teletext pages include sub-pages that are automatically displayed. You can hold any sub-page, or view it at any time.

1 Display the sub-page list.



Colour*	Meaning of sub-page number
Yellow	Currently being displayed.
White	Can be displayed.
Blue or Red	Cannot be displayed and it is not sent.

\* Background color of the sub-page number.

2 Choose a sub-page.



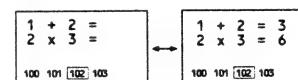
● To cancel sub-page:



## ■ Reveal

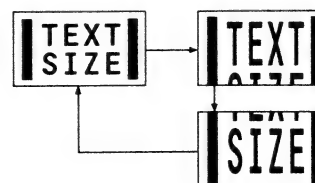
Some teletext pages include hidden text (such as answers to a quiz).

Each time you press (Reveal), text is hidden or revealed.



## ■ Size

You can double the height of the teletext display.



## ■ Index

You can return to the index page instantly.



**Fastext/TOP/WST:**  
Returns to page 100 or a previously specified page.

**List mode:**  
Returns to the page number displayed in the lower left area of the screen.

## ■ Cancel

You can search for a teletext page while watching TV.

1 Choose a teletext page.

The TV searches for a teletext page.

2 Cancel teletext mode temporarily.



The TV programme appears.  
When the TV finds the teletext page, its page number appears in the upper left of the screen.

3 Return to a teletext page when the page number is on the screen.



ENGLISH

AV-32WZ4EP  
AV-28WZ4EP  
AV-28WZ4EPS

## Menu Operation

- 1 Display MENU.**  
The MENU (main menu) appears.

- 2 Choose an item.**

- 3 Display the sub-menu.**

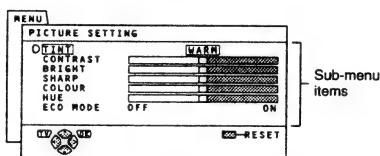
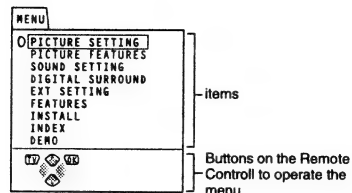
- 4 Choose an Sub-menu item.**

- 5 Change the setting.**
- Depending on the Sub-menu display, the following buttons can be used.

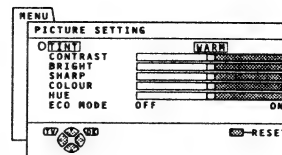
- 6 Complete the setting.**  
The menu disappears.

- To return to the previous menu or exit the MENU.**

- To exit the MENU instantly.**



## Picture Setting



- 1 Display MENU.**

- 2 Choose PICTURE SETTING.**

- 3 Display the Picture Setting menu.**

### Tint

You can choose one of three Tint modes to adjust the picture settings automatically.

- 1 Press ▼/▲ to choose TINT.**

- 2 Press ◀/▶ to choose a mode.**

#### COOL:

A cool white colour base with a boost in the colour and contrast levels that creates a more vivid picture.

#### WARM:

A warm orange/red colour base that creates the appropriate colour and contrast levels for watching films.

#### NORMAL:

A normal white colour base with normal colour and contrast levels.

- 3 Press [OK].**  
This completes the setting.

### Picture Adjustment

You can adjust the picture to your liking.

- 1 Press ▼/▲ to choose an item.**

- 2 Press ◀/▶ to adjust the setting.**

Lower	Item	Higher
	<b>CONTRAST</b> (picture contrast)	
Darker	<b>BRIGHT</b> (picture brightness)	Brighter
Softer	<b>SHARP</b> (picture sharpness)	Sharper
Lighter	<b>COLOUR</b> (picture colour)	Deeper
Reddish	<b>HUE</b> (picture hue)	Greenish

#### Note:

- You can adjust the HUE (picture hue) only when the colour system is NTSC 3.58 or NTSC 4.43.

- To return to the default settings, press the blue button.

- 3 Press [OK].**  
This completes the setting.

### Eco Mode

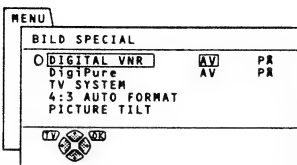
When you set the Eco Mode to ON, the screen contrast is automatically adjusted to a setting suitable for the brightness of your room. This reduces eye strain and the power consumption of the TV.

- 1 Press ▼/▲ to choose ECO MODE.**

- 2 Press ◀/▶ to choose ON.**  
To cancel the Eco Mode, choose OFF.

- 3 Press [OK].**  
This completes the setting.  
If you set the Eco Mode to ON, the Eco lamp lights.

## Picture Features



1 Press **MENU**.

2 Choose **PICTURE FEATURES**.

3 Display the Picture Features menu.

### Digital VNR

When you set the Digital VNR to ON, you can reduce the noise on the screen so improving picture quality further.

1 Press **▼/▲** to choose **DIGITAL VNR**.

2 Press **◀/▶** to choose **ON**.

• To cancel the Digital VNR, choose **OFF**.

3 Press **OK**.

This completes the setting.

### DigiPure

When the DigiPure is set to ON, optimum edge compensation applies to each portion of the same picture through digital edge compensation. Thus, Clear and natural looking images are obtained.

1 Press **▼/▲** to choose **DigiPure**.

2 Press **◀/▶** to choose **ON**.

• To cancel the DigiPure, choose **OFF**.

3 Press **OK**.

This completes the setting.

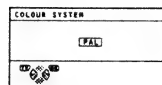
#### Notes:

- Set the DigiPure to ON normally.
- The DigiPure function can also be set to ON and OFF by pressing **▲** (Volume) button on the TV for 5 seconds or more.

### Colour System

The colour system is automatically chosen, but if the picture is not clear or no colour appears, choose the colour system manually.

1 Press **▼/▲** to choose **COLOUR SYSTEM**. Then press **OK**.



2 Press **◀/▶** to choose the appropriate colour system.

#### PAL:

PAL system.

#### SECAM:

SECAM system.

#### NTSC3.58:

NTSC 3.58 MHz system.

#### NTSC4.43:

NTSC 4.43 MHz system.

#### AUTO:

Automatic colour system selection.

#### Notes:

- The AUTO may not function properly with poor signal quality. If the picture is abnormal in AUTO mode, choose another colour system manually.
- When in the TV mode (PR 1 to PR 99), you cannot choose AUTO, NTSC 3.58 or NTSC 4.43.
- When in the TV mode (PR 0), you cannot choose NTSC 3.58 or NTSC 4.43.

3 Press **OK**.

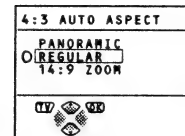
This completes the setting.

### 4:3 Auto Aspect

You can preset one of three ZOOM modes, REGULAR, PANORAMIC or 14:9 ZOOM, as the ZOOM mode for the normal picture (4:3 aspect ratio).

1 Press **▼/▲** to choose **4:3 AUTO ASPECT**. Then press **OK**.

The 4:3 AUTO ASPECT menu appears.



2 Press **▼/▲** to choose a ZOOM mode.

3 Press **OK**.

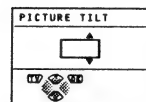
This completes the setting.

### Picture Tilt

There are cases where the effects of the magnetic pull from the earth may make the picture tilt. If this happens, correct the picture as follows.

1 Press **▼/▲** to choose **PICTURE TILT**. Then press **OK**.

The PICTURE TILT menu appears.

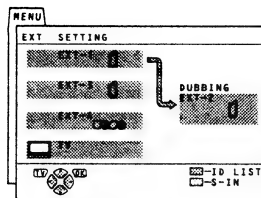


2 Press **▼/▲** until the picture becomes horizontal.

3 Press **OK**.

The correction is complete.

## EXT Setting



1 Display MENU.



2 Choose EXT SETTING.



3 Display the EXT Setting menu.

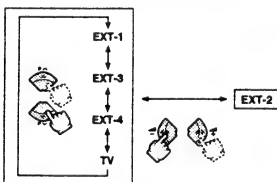


### EXT Setting

You can choose S-VIDEO or normal input for EXT-2, EXT-3 and EXT-4 terminals, and you can give an EXT ID to each EXT input terminal.

#### To choose S-VIDEO input

1 Press ◀/▶/▼/▲ to choose an EXT terminal.



2 Press the yellow button.

The S-VIDEO input indication appears.

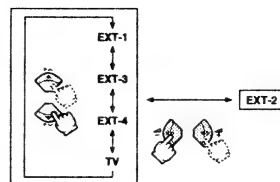
- To choose normal input, press the yellow button again.

3 Press .

This completes the setting.

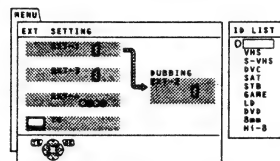
#### To give an EXT ID

1 Press ◀/▶/▼/▲ to choose an EXT terminal.



2 Press the blue button.

The ID LIST appears.



3 Press ▼/▲ to choose a EXT ID.

Note:

- To erase the EXT ID, choose a blank space.

4 Press .

The EXT ID is set to the EXT terminal.

5 Press .

This completes the setting.

### Dubbing

You can choose output to a VCR or other device connected to the EXT-2 terminal. Note that you cannot output from the EXT-2 terminal when the TV is turned off.

Note:

- RGB signals from TV games and Teletext screens cannot be output from EXT-2 terminal.

1 Press ◀/▶ to choose EXT-2.

2 Press ▼/▲ to choose the output.

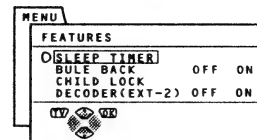
If you choose TV:

The sound and picture of the currently chosen channel is output to EXT-2 and this output can be recorded on a VCR connected to the EXT-2 terminal while watching a video input from other terminals.

3 Press .

This completes the setting.

## Features



1 Display MENU.



2 Choose FEATURES.



3 Display the Features menu.



### Sleep Timer

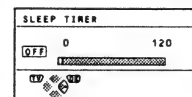
You can set the TV to automatically turn off after a specified period of time.

Note:

- The Sleep Timer does not turn off the Main power.

1 Press ▼/▲ to choose SLEEP TIMER. Then press .

The Sleep Timer menu appears.



2 Press ◀/▶ to choose a period of time.

You can set the period of time a maximum of 120 minutes in 10 minute increments.

3 Press .

The Sleep Timer lamp lights if you set the Sleep Timer.

To display the remaining time:

Do step 1 to display the Sleep Timer menu, and press after checking the remaining time.

To cancel the Sleep Timer:

Do step 1 to display the Sleep Timer menu. Press ◀ choose "OFF", and then press .

- The Sleep Timer lamp goes out.

Note:

- One minute before the Sleep Timer turns off the TV, "GOOD NIGHT" appears.

### Blue Back

You can set the TV to automatically change to a blue screen and mute the sound when a weak signal or no signal is received or when there is no input from an external device.

1 Press ▼/▲ to choose BLUE BACK.

2 Press ◀/▶ to choose ON.

- To cancel the Blue Back, choose OFF.

3 Press .

This completes the setting.

### Child Lock

You can lock some channels to prevent your children from watching them.

#### To set the CHILD LOCK

1 Press ▼/▲ to choose CHILD LOCK. Then press (number 0).

The Set ID No. menu appears.

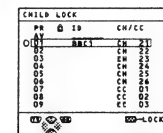


2 Enter the ID number.

- Press ▼/▲ to choose a number.
- Press ◀/▶ to move the cursor.

3 Press .

The Child Lock menu appears.



## Features

- Press  $\nabla/\blacktriangle$  to choose a channel, then press the blue button.

The  $\mathbf{\bar{L}}$  (locked) mark appears, and the chosen channel is locked.

- To cancel the Child Lock, press the blue button again.
- Repeat step 4 to lock all channels which you want to lock.

- Press  $\square$ .

This completes the setting.

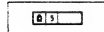
### Notes:

- You cannot choose a locked channel using the  $\nabla/\blacktriangle$  buttons on the remote control nor the  $\nabla/\blacktriangle$  buttons on the TV.
- Even if a locked channel is displayed, the programme cannot be watched.

## To watch a locked channel

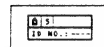
- Press the number buttons to choose a locked channel.

The  $\mathbf{\bar{L}}$  (locked) mark appears.



- Press  $\mathbf{0}$  (Information).

The ID No. input menu appears.



- Press the number buttons to enter the ID number.

The locked channel can now be watched.

### If you forget the ID number:

Do steps 1 of "To set the Child Lock". After confirming the ID number, press  $\square$  to exit the menu.

## Decoder (EXT-2)

When you connect a Decoder to a T-V LINK compatible VCR, you have to set the Decoder (EXT-2) to ON for watching scrambled channels.

- Choose a scrambled channel.

The scrambled picture appears.

- If the picture is unscrambled you don't need to change the Decoder (EXT-2) setting.

- Press  $\square$  to display MENU. Then Press  $\nabla/\blacktriangle$  to choose FEATURES.

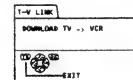
- Press  $\square$  to display the Features menu.

- Press  $\nabla/\blacktriangle$  to choose DECODER (EXT-2).

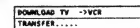
- Press  $\blacktriangle/\blacktriangleright$  to choose ON.

- Press  $\square$ .

The T-V LINK menu appears.



- Press  $\square$ .



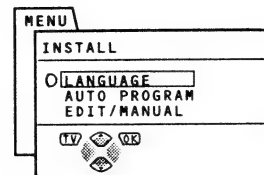
The translation of channel data from the TV to the VCR begins. The display disappears once the data transmission ends.

- Repeat steps 1 to 7 watch a different channel using the decoder.

### Note:

- Depending on the type of VCR, the display may change once data transmission ends. In this case, refer to the VCR's manual.

## Install



- Display MENU



- Choose INSTALL.



- Display the Install menu.



## Language

You can choose one of 10 languages for the on-screen display.

- Press  $\nabla/\blacktriangle$  to choose LANGUAGE.

The Language menu appears.



- Press  $\nabla/\blacktriangle$  to choose a language.

- Press  $\square$ .

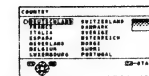
This completes the setting.

## Auto Program

You can automatically allocate up to 99 stations to the PR channels (PR 1 to PR 99) on this TV.

- Press  $\nabla/\blacktriangle$  to choose AUTO PROGRAM, then press  $\square$ .

The Country menu appears.



- Press  $\blacktriangle/\blacktriangleright/\blacktriangle/\blacktriangleright$  to choose your country.

- Press the blue button.

The Auto Programming starts. The Edit menu appears after the PR channels have been set.

### If the ACI menu is displayed:

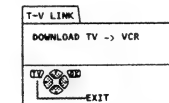
If your Cable TV station supports ACI (Automatic Channel Installation), the ACI menu is displayed. Please operate it according to "ACI Operation" procedures at the bottom of page 4. The channel is set quickly to the PR channel according to the order decided for all the channels.

### Notes:

- If this TV identifies a broadcast station name, that station ID is also automatically registered in a PR channel.
- To cancel the Auto programming, press  $\square$ .
- If a station you want to view is not set to a PR channel, manually set it using the Edit menu. (See page 26.)
- To edit PR channels or set a station to PR 0 (AV) channel, refer to page 26 "Edit/Manual".

- Press  $\square$ .

This completes the procedure and the T-V LINK menu appears.



### When a T-V LINK compatible VCR is connected:

You can transmit the latest PR channel data from the TV to the VCR. Carry out the procedure described in "Downloading the PR channel data to the VCR" on page 28.

### When a T-V LINK compatible VCR is not connected:

You cannot transmit the latest PR channel data from the TV to the VCR.

Press  $\square$  to exit the T-V LINK menu.



## Install

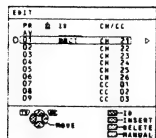
## Edit/Manual

You can change PR channel settings.

- You can delete an unwanted station from a PR channel.
- You can change the PR channel number of a station.
- You can add station IDs to PR channels.
- You can insert a new station to a PR channel, or
- You can manually set the desired station to a PR channel.

### Press $\nabla/\Delta$ to choose EDIT/MANUAL.

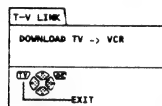
The Edit menu appears.



### Use any of the following procedures to edit the PR channel setting.

#### Press $\square$ .

This completes the procedure and the T-V LINK menu appears.



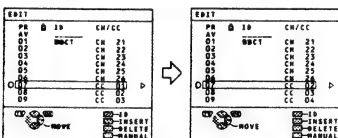
**When a T-V LINK compatible VCR is connected:**

You can transmit the latest PR channel data from the TV to the VCR. Carry out the procedure described in "Downloading the PR channel data to the VCR" on page 28.

**When a T-V LINK compatible VCR is not connected:**  
You cannot transmit the latest PR channel data from the TV to the VCR. Press  $\square$  to exit the T-V LINK menu.

### Deleting a station

#### Press $\nabla/\Delta$ to choose the station you want to delete then press the yellow button.

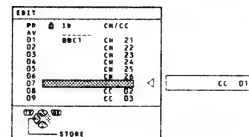


**Note:**

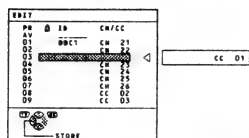
- If you delete a station from a PR channel, the following stations PR channel number move back one.

### Changing the PR channel number

#### Press $\nabla/\Delta$ to choose the station, then press $\square$ .



#### Press $\nabla/\Delta$ to move the station to the desired PR channel number.

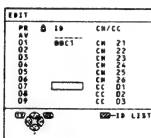


- To cancel the operation, press  $\square$  (Information).

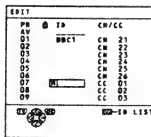
#### Press $\leftarrow$ .

### Adding a Station ID

#### Press $\nabla/\Delta$ to choose the station, then press the red button.

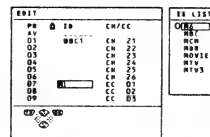


#### Press $\nabla/\Delta$ to choose the first character of the desired Station ID.



### Press the blue button.

The ID List menu appears.



#### Press $\nabla/\Delta$ to choose the station ID.

- To cancel the operation, press  $\square$  (Information).

#### Press $\square$ .

Adding a Station ID name of your own:

Do the following procedure in place of "Adding a Station ID".

#### Press $\nabla/\Delta$ to choose the station, then press the red button.

#### Press $\nabla/\Delta$ to choose a character, then press $\leftarrow/\rightarrow$ to move the cursor.

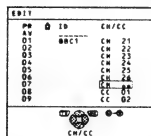
#### Repeat step 2 to complete the Station ID, then press $\square$ .

### Inserting a new station

**If you want to insert French stations to the PR channels:**  
You have to set the Country setting to FRANCE before inserting French stations to the PR channels.

If your Country setting is not FRANCE, change the Country setting to FRANCE. To change the Country Setting, refer to "Changing the Country Setting" on page 28.

#### Press $\nabla/\Delta$ to choose the PR channel, then press the green button.



#### Press $\nabla/\Delta$ to choose CH or CH

CH: to insert the terrestrial broadcast stations  
CC: to insert the cable TV stations

**To set a French station:**

Choose CH1, CH2, CC1 or CC2.

- To cancel the operation, press  $\square$  (Information).

**Note:**

- For details on the relationship between the displayed CH/CC number and the actual channel number, see the Channel Table on page 34.

## Install

### Press the number buttons to enter the channel number.

The channel number blinks. When the channel setting is complete, the blinking goes off.

- To enter a one-digit channel number, enter the number and press  $\square$ .

**Note:**

- When you insert a station, the station preset to PR99 is deleted.

### Setting a station to a PR channel manually

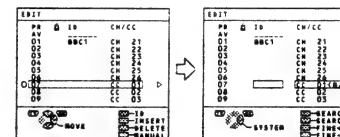
**If you want to set French stations to the PR channels:**  
You have to set the Country setting to FRANCE before setting French stations to the PR channels.

If your Country setting is not FRANCE, change the Country setting to FRANCE. To change the Country Setting, refer to "Changing the Country Setting" on page 28.

#### Press $\nabla/\Delta$ to choose a PR channel number, then press the blue button.

**Note:**

- PR channel number "AV" appears on the screen as PR 0 channel. We recommend setting this PR channel to the VCR RF channel from a VCR connected to the aerial socket.



#### Press the green or red button to search for a station.

Scanning stops when the TV finds a station. To continue searching, press the red or green button again and repeat until the station you want appears.

CH: The terrestrial broadcast stations  
CC: The cable TV stations

**If reception is poor:**

Press the blue or yellow button to fine-tune the station.

**If reception is not correct:**

Press  $\rightarrow$  to choose the correct broadcast system.

**Note:**

- For details on the relationship between the displayed CH/CC number and the actual channel number, see the Channel Table on page 34.

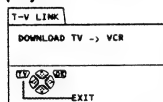
#### Press $\square$ .

## Install

### ■ Downloading the PR channel data to the VCR.

You can transmit the latest PR channel data from the TV to the VCR with T-V LINK.

- 1 Make sure that the T-V LINK menu is displayed.

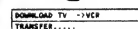


#### Notes:

- You cannot display the T-V LINK menu directly by choosing it from a menu.
- You cannot transmit the PR channel data to the VCR when a T-V LINK compatible VCR is not connected. Press to exit the menu.
- For details about T-V LINK, refer to page 5.

- 2 Turn the VCR on.

- 3 Press .



The data transmission begins.  
The display disappears once the data transmission ends.

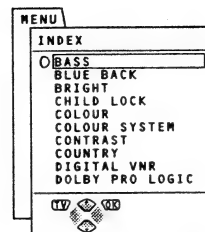
#### Note:

- Depending on the type of VCR, the display may change once data transmission ends. In this case, refer to the VCR's manual.

### ■ Changing the Country Setting

- 1 Display the Install menu.
  - To return to the Install menu from the Edit menu, press (information).
- 2 Press to choose AUTO PROGRAM. Then press .
- 3 Press to choose a Country. This completes the setting.
- 4 Press to exit the MENU.
  - To return to the Install menu, press (information).

## Index



- 1 Display MENU.



- 2 Choose INDEX.



- 3 Display the Index menu.



The functions in each menu are listed in the Index menu. The required function can be found in the Index menu and the operating menu for that function can be entered with one touch.

- 1 Press to choose a function.

If the desired function is not displayed, press until it appears.

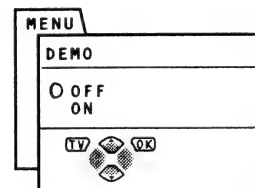
- 2 Press .

The chosen function's operating menu will be displayed.

- To return to the MENU (Main Menu), press (Information).

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## Demo



- 1 Display MENU.



- 2 Choose DEMO.



- 3 Display the Demo menu.



You can see the main features of your TV by using the Demo function.

**When the Demo is set to ON:**  
Each time the TV is turned on, the demonstration starts automatically. If you do not want that to happen, set the Demo setting to OFF.

- 1 Press to choose ON.

- To cancel the Demo function, choose OFF.

- 2 Press .

The demonstration will start.

To stop the demonstration, press one of the buttons on the remote control.

AV-32WZ4EP  
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AV-28WZ4EPS

## Additional Preparation

### Notes:

- Use headphones with a stereo mini jack (dia. 3.5 mm).
- When using headphones, follow the procedure "Headphone" on page 18.
- For further details, refer to manuals provided with the devices you are connecting.
- Connecting cables are not supplied.
- This TV set has external device connectors to which you can connect external devices. However, there are some differences in functions among them. Consult the table below before making connections.

### External terminals specifications

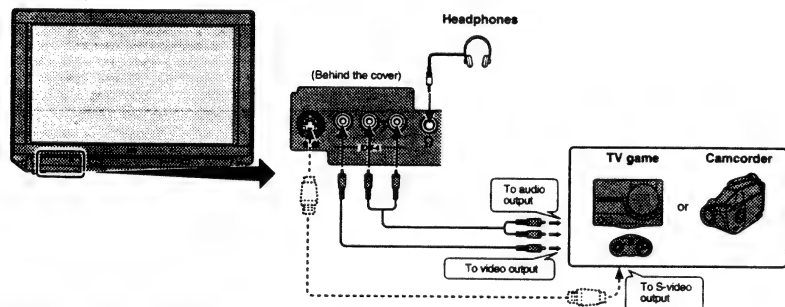
	EXT-1	EXT-2	EXT-3	EXT-4 (front)
VIDEO IN	√	√*1	√*1	√*1
VIDEO OUT	√*2	√*3	—	—
S-VIDEO IN	—	√*1	√*1	√*1
S-VIDEO OUT	—	—	—	—
RGB IN	√	—	—	—
AUDIO-L IN	√	√	√	√
AUDIO-R IN	√	√	√	√
AUDIO-L OUT	√*2	√*3	—	—
AUDIO-R OUT	√*2	√*3	—	—
T-V LINK	—	√	—	—
Others	*1 Automatic detection and switching of input mode. *2 Automatic detection and switching of input mode. *3 Automatic detection and switching of ZOOM mode.			

\*1 Choose VIDEO or S-VIDEO mode from the EXT Setting menu. For details, see page 22 "EXT Setting".

\*2 Only the TV broadcast is output.

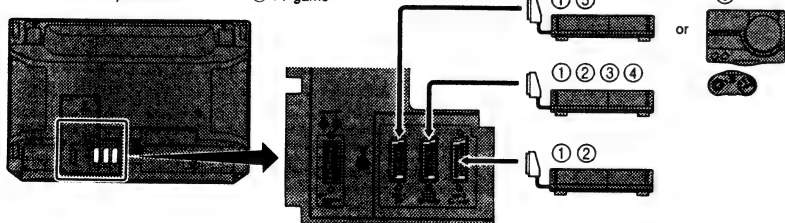
\*3 TV broadcasts or inputs from other EXT terminals can be output. For details, see page 22 "Dubbing".

### Front panel connections



### Rear panel connections

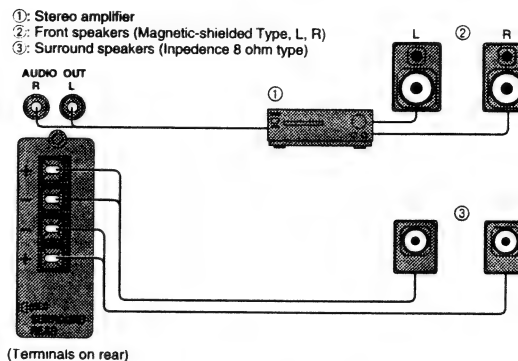
- 1 VCR
- 2 S-VHS VCR
- 3 T-V LINK compatible VCR
- 4 T-V LINK compatible S-VHS VCR
- 5 Decoder
- 6 TV game



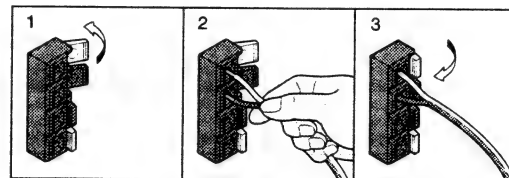
## Connecting Speakers

### Caution:

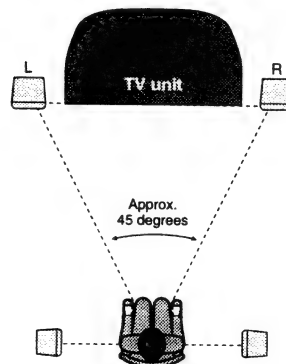
- Do the following before connecting.
- Turn the power of all the equipment off.
- Set the amplifier volume to low.
- Read the manuals provided with the amplifiers and speakers.



(Terminals on rear)



### Positioning the speakers



### Notes:

- Correctly connect the ⊕ speaker terminal to the ⊕ TV terminal, and the ⊖ speaker terminal to the ⊖ TV terminal.
- Though there is no L (left) and R (right) distinction for Surround Speakers, make sure that the ⊕ and ⊖ terminals on the speakers and the TV are correctly connected to the corresponding terminals as shown in the figure.
- Use the AUDIO OUT terminals for connecting an audio system. The volume output is controlled via the TV and the AUDIO OUT terminal output is not interrupted by headphone connection.
- When you want to use your Dolby Surround decoder, connect it to the AUDIO OUT terminals. Then set this TV's surround function to off.
- Use impedance 8 ohm type speakers for surround speakers ③.
- Use magnetic-shielded speakers for front speakers ② to prevent interference by the TV.
- For optimal effect, install the speakers ③ at least 1 metre above the heads of seated viewers.

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AV-28WZ4EPS



## Channel Table

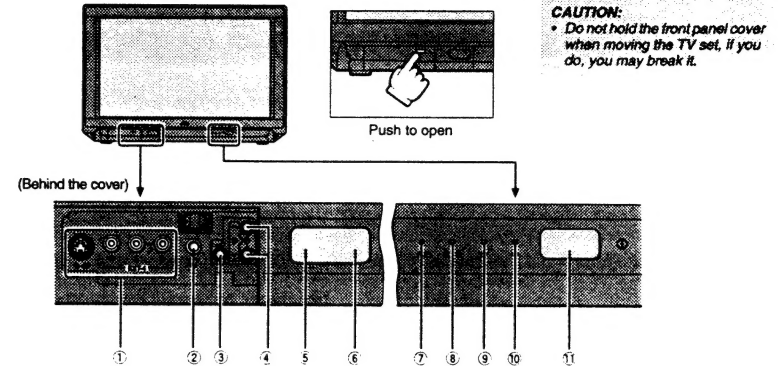
- The following table shows the relationship between the displayed CH/CC channel number and the actual channel number.
- The actual channel numbers for the "CC" channel numbers from CC110 to CC161 differ depending on the cable TV station. Check which actual channel numbers correspond to which "CC" channels while referring to the broadcast frequencies which are indicated in the channel tables of each cable TV station. If you can not find the broadcast frequency for a channel, contact the cable TV station.

CH	Channel	CH	Channel	CC	Channel	CC	Channel
CH 02 / CH 202	E2	CH 40 / CH 240	E40	CC 01 / CC 201	S1	CC 31 / CC 231	S31
CH 03 / CH 203	E3, ITALY A	CH 41 / CH 241	E41	CC 02 / CC 202	S2	CC 32 / CC 232	S32
CH 04 / CH 204	E4, ITALY B	CH 42 / CH 242	E42	CC 03 / CC 203	S3	CC 33 / CC 233	S33
CH 05 / CH 205	E5, ITALY D	CH 43 / CH 243	E43	CC 04 / CC 204	S4	CC 34 / CC 234	S34
CH 06 / CH 206	E6, ITALY E	CH 44 / CH 244	E44	CC 05 / CC 205	S5	CC 35 / CC 235	S35
CH 07 / CH 207	E7, ITALY F	CH 45 / CH 245	E45	CC 06 / CC 206	S6	CC 36 / CC 236	S36
CH 08 / CH 208	E8	CH 46 / CH 246	E46	CC 07 / CC 207	S7	CC 37 / CC 237	S37
CH 09 / CH 209	E9, ITALY G	CH 47 / CH 247	E47	CC 08 / CC 208	S8	CC 38 / CC 238	S38
CH 10 / CH 210	E10, ITALY H	CH 48 / CH 248	E48	CC 09 / CC 209	S9	CC 39 / CC 239	S39
CH 11 / CH 211	E11, ITALY H+1	CH 49 / CH 249	E49	CC 10 / CC 210	S10	CC 40 / CC 240	S40
CH 12 / CH 212	E12, ITALY H+2	CH 50 / CH 250	E50	CC 11 / CC 211	S11	CC 41 / CC 241	S41
CH 21 / CH 221	E21	CH 51 / CH 251	E51	CC 12 / CC 212	S12	CC 75 / CC 275	X
CH 22 / CH 222	E22	CH 52 / CH 252	E52	CC 13 / CC 213	S13	CC 76 / CC 276	Y
CH 23 / CH 223	E23	CH 53 / CH 253	E53	CC 14 / CC 214	S14	CC 77 / CC 277	Z, ITALY C
CH 24 / CH 224	E24	CH 54 / CH 254	E54	CC 15 / CC 215	S15	CC 78 / CC 278	Z+1
CH 25 / CH 225	E25	CH 55 / CH 255	E55	CC 16 / CC 216	S16	CC 79 / CC 279	Z+2
CH 26 / CH 226	E26	CH 56 / CH 256	E56	CC 17 / CC 217	S17		
CH 27 / CH 227	E27	CH 57 / CH 257	E57	CC 18 / CC 218	S18		
CH 28 / CH 228	E28	CH 58 / CH 258	E58	CC 19 / CC 219	S19		
CH 29 / CH 229	E29	CH 59 / CH 259	E59	CC 20 / CC 220	S20		
CH 30 / CH 230	E30	CH 60 / CH 260	E60	CC 21 / CC 221	S21		
CH 31 / CH 231	E31	CH 61 / CH 261	E61	CC 22 / CC 222	S22		
CH 32 / CH 232	E32	CH 62 / CH 262	E62	CC 23 / CC 223	S23		
CH 33 / CH 233	E33	CH 63 / CH 263	E63	CC 24 / CC 224	S24		
CH 34 / CH 234	E34	CH 64 / CH 264	E64	CC 25 / CC 225	S25		
CH 35 / CH 235	E35	CH 65 / CH 265	E65	CC 26 / CC 226	S26		
CH 36 / CH 236	E36	CH 66 / CH 266	E66	CC 27 / CC 227	S27		
CH 37 / CH 237	E37	CH 67 / CH 267	E67	CC 28 / CC 228	S28		
CH 38 / CH 238	E38	CH 68 / CH 268	E68	CC 29 / CC 229	S29		
CH 39 / CH 239	E39	CH 69 / CH 269	E69	CC 30 / CC 230	S30		

CH	Channel	CH	Channel	CC	Frequency (MHz)	CC	Frequency (MHz)
CH 102	F2	CH 141	F41	CC 110	116 - 124	CC 151	383 - 391
CH 103	F3	CH 142	F42	CC 111	124 - 132	CC 152	391 - 399
CH 104	F4	CH 143	F43	CC 112	132 - 140	CC 153	399 - 407
CH 105	F5	CH 144	F44	CC 113	140 - 148	CC 154	407 - 415
CH 106	F6	CH 145	F45	CC 114	148 - 156	CC 155	415 - 423
CH 107	F7	CH 146	F46	CC 115	156 - 164	CC 156	423 - 431
CH 108	F8	CH 147	F47	CC 116	164 - 172	CC 157	431 - 439
CH 109	F9	CH 148	F48	CC 123	220 - 228	CC 158	439 - 447
CH 110	F10	CH 149	F49	CC 124	228 - 236	CC 159	447 - 455
CH 121	F21	CH 150	F50	CC 125	236 - 244	CC 160	455 - 463
CH 122	F22	CH 151	F51	CC 126	244 - 252	CC 161	463 - 469
CH 123	F23	CH 152	F52	CC 127	252 - 260		
CH 124	F24	CH 153	F53	CC 128	260 - 268		
CH 125	F25	CH 154	F54	CC 129	268 - 276		
CH 126	F26	CH 155	F55	CC 130	276 - 284		
CH 127	F27	CH 156	F56	CC 131	284 - 292		
CH 128	F28	CH 157	F57	CC 132	292 - 300		
CH 129	F29	CH 158	F58	CC 133	300 - 306		
CH 130	F30	CH 159	F59	CC 141	306 - 311		
CH 131	F31	CH 160	F60	CC 142	311 - 319		
CH 132	F32	CH 161	F61	CC 143	319 - 327		
CH 133	F33	CH 162	F62	CC 144	327 - 335		
CH 134	F34	CH 163	F63	CC 145	335 - 343		
CH 135	F35	CH 164	F64	CC 146	343 - 351		
CH 136	F36	CH 165	F65	CC 147	351 - 359		
CH 137	F37	CH 166	F66	CC 148	359 - 367		
CH 138	F38	CH 167	F67	CC 149	367 - 375		
CH 139	F39	CH 168	F68	CC 150	375 - 383		
CH 140	F40	CH 169	F69				

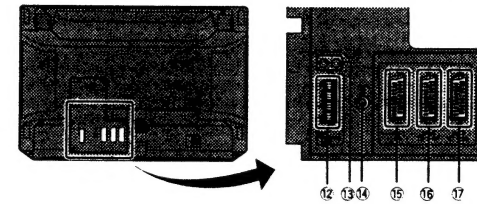
## TV Buttons and Parts

### Front Panel



1 EXT-4 terminals	pages 22, 30	7 3D lamp	pages 10, 19, 21
2 Headphone jack (mini jack)	pages 19, 21, 30	8 ECO lamp	page 15
3 ▲ (Volume) button	page 7	9 Sleep timer lamp	page 23
4 P V/A buttons / ▲/▼ buttons	page 7	10 Power lamp	pages 3, 6
5 Remote control sensor		11 Main power button	pages 3, 6
6 ECO sensor			

### Rear Panel



12 SURROUND REAR terminal	page 31	15 EXT-1 terminal	pages 2, 22, 30
13 AUDIO OUT terminal	page 31	16 EXT-2 terminal	pages 2, 5, 22, 30
14 Aerial socket	page 2	17 EXT-3 terminal	pages 22, 30

## Troubleshooting

- If the plug is disconnected from the AC socket, or the TV aerial has problems, you may think there is a problem with the TV itself. Be sure to check the following before calling for service.

### IMPORTANT

- Review all instructions in this manual

	Problem	Action
■ GENERAL	The TV cannot be turned on.	<ul style="list-style-type: none"> <li>Insert the plug in an AC socket.</li> <li>Turn the main power on. (See page 6.)</li> </ul>
	No picture or sound.	<ul style="list-style-type: none"> <li>Check aerial connections. (See page 2.)</li> <li>Choose the correct input mode. (See page 7.)</li> <li>Choose the correct colour system manually. (See page 16.)</li> </ul>
	The TV shuts off automatically.	<ul style="list-style-type: none"> <li>Did you set the Sleep Timer? (See page 23.)</li> </ul>
	Inoperable remote control.	<ul style="list-style-type: none"> <li>Replace the batteries. (See page 2.)</li> <li>Insert the batteries correctly. (See page 2.)</li> <li>Use the remote control within about 7 metres of the TV.</li> </ul>
	MENU can not be displayed.	<ul style="list-style-type: none"> <li>Are you watching the Teletext screen? None of the Menu operations are possible when viewing a teletext programme. Perform the Menu operation in the TV mode.</li> </ul>
■ PICTURE	Poor colour.	<ul style="list-style-type: none"> <li>Adjust COLOUR and BRIGHT. (See page 15.)</li> <li>Choose the correct colour system manually. (See page 16.)</li> </ul>
	The ZOOM mode suddenly changes.	<ul style="list-style-type: none"> <li>The AUTO mode is working. (See page 9.)</li> </ul>
	The picture is tilted.	<ul style="list-style-type: none"> <li>Correct the tilted picture. (See page 17.)</li> </ul>
	Lines or streaks in picture (interference).	<ul style="list-style-type: none"> <li>Move the components apart until the interference is eliminated.</li> <li>Reposition the aerial.</li> </ul>
	Spots (crosstalk).	<ul style="list-style-type: none"> <li>Reposition the aerial.</li> <li>Replace with an aerial with better directionality.</li> </ul>
	Double pictures (ghosts).	<ul style="list-style-type: none"> <li>Reposition the aerial.</li> <li>Replace with an aerial with better directionality.</li> </ul>
	Snowy pictures (noise).	<ul style="list-style-type: none"> <li>Check aerial connections.</li> <li>Redirect the aerial.</li> <li>Replace or repair the aerial.</li> </ul>

## Troubleshooting

	Problem	Action
■ SOUND	The screen turns blue.	<ul style="list-style-type: none"> <li>Is the Blue Back function set to ON? (See page 23.)</li> </ul>
	No sound from the TV's speakers.	<ul style="list-style-type: none"> <li>Disconnect the headphones.</li> <li>If you want to have sound come from both the TV's speaker and headphones. See page 19.</li> <li>Set SPEAKER to ON. (See page 18.)</li> </ul>
	The headphone volume level cannot be adjusted.	<ul style="list-style-type: none"> <li>It cannot be adjusted with the ◀/▶ buttons or ▲ (volume) →+ buttons. Adjust it with the VOLUME function in the HEADPHONE menu. (See page 19.)</li> </ul>
	The sound from the TV does not stop even if the headphones are connected.	<ul style="list-style-type: none"> <li>TV SPEAKER in the HEADPHONE menu is set to ON. Change the setting to OFF. (See page 19.)</li> </ul>
	No stereo sound.	<ul style="list-style-type: none"> <li>Change STEREO/Hi to DD mode. (See page 18.)</li> <li>Is TV SPEAKER on the Pro Logic 3D-Phonic menu or Dolby Pro Logic menu set to CENTRE? Change the TV SPEAKER setting to L/R. (See pages 20 and 32.)</li> </ul>
	No "SUB-I" or "SUB-II" sound in a multi-sound broadcast.	<ul style="list-style-type: none"> <li>Change STEREO/Hi to the correct mode. (See page 18.)</li> </ul>
■ TELETEXT	Surround function does not function properly.	<ul style="list-style-type: none"> <li>Dolby Pro Logic Surround and Pro Logic 3D-Phonic work properly only with Dolby Surround encoded programmes.</li> <li>Functions other than Hyper Sound and the Headphone surround functions work properly only with stereo programmes.</li> <li>Hyper Sound works properly only with mono programmes.</li> </ul>
	No teletext reception.	<ul style="list-style-type: none"> <li>Tune to a channel that has teletext. (See page 12.)</li> <li>Videotaping teletext is not recommended as it may not record correctly.</li> </ul>
	The current time is not displayed.	<ul style="list-style-type: none"> <li>Tune to a channel that has teletext. (See page 12.)</li> </ul>

### The following are normal and are NOT malfunctions:

- When touching the picture tube surface, you might feel a slight charge of static electricity. This is because the picture tube contains static electricity; it does not affect the human body.
- The TV may emit a crackling sound due to a sudden change in temperature. There is no problem unless the picture or sound is abnormal.
- When a still, bright image (of a white dress, for example) appears on the screen, the image may be coloured. This problem occurs in all picture tubes, and as the bright image disappears, the colour also disappears.
- This TV is equipped with a microcomputer that may operate abnormally due to interference from external components. If this happens, turn off the main power and disconnect the power cord from the AC socket. Then reconnect the power cord to AC socket and turn on the main power again.



## Specifications

Item	Model	AV-32WZ4EP	AV-28WZ4EP / AV-28WZ4EPS
TV RF systems		CCIR B/G, I, L	
Colour systems		PAL, SECAM (NTSC 3.58 / 4.43 MHz only in EXT modes)	
Channels and frequencies		E2-E12, E21-E69, S1-S41, X, Y, Z, Z+1, Z+2, A-H, H+1, H+2, F2 - F10, F21 - F69 • French cable TV channel of broadcast frequencies 116 - 172 MHz and 220 - 469 MHz	
Sound-multiplex systems		A2 (B/G)/NICAM (B/G, L) system	
Teletext systems		Fastext (United Kingdom system) / TOP (German system) / WST (standard system)	
Power requirements		AC 220 - 240 V, 50 Hz	
Power consumption		Maximum 249 W, Average 145 W, Standby 1.2 W	Maximum 242 W, Average 138 W, Standby 1.2 W
Picture tube size		Visible area 76 cm (measured diagonally)	Visible area 66 cm (measured diagonally)
Audio output		Rated Power output: 20 W + 20 W	
Speakers		10 cm round × 2, 3.5 cm round × 2	
External input / output	EXT-1, EXT-2, EXT-3	21-pin Euroconnector (SCART)	
	EXT-4	VIDEO IN (RCA) AUDIO L / R IN (RCA) S-VIDEO IN (Mini Din 4-pin)	
	AUDIO OUT	(Variable out (0-1 Vrms), low impedance) FRONT L/R output (RCA)	
	SURROUND REAR	Speaker terminals for external surround speakers (Impedance 8 ohm) only. Rated power output: 7.5 W + 7.5W	
		Headphone jack (stereo mini jack, dia. 3.5 mm)	
Dimensions (W × H × D)		805 mm × 550 mm × 550 mm	716 mm × 489 mm × 496 mm
Weight		49.8 kg	36.3 kg
Accessories		Remote control unit RM-C793 × 1 AAA (R03) dry cell battery × 2	

**Design and specifications subject to change without notice.**

Pictures displayed on the screen using this TV's image-processing functions should not be shown for any commercial or demonstration purpose in public places (tearooms and halls in hotels, etc.) without the consent of the owners of copyright of the original picture sources, as this constitutes an infringement of copyright.

**JVC**  
VICTOR COMPANY OF JAPAN, LIMITED